



Department of the Interior

2011 Strategic Sustainability Performance Plan

A handwritten signature in black ink, appearing to read "R. Suh", is written over a horizontal line.

Rhea Suh

Assistant Secretary - Policy, Management and Budget
and
The Department's Senior Sustainability Officer

Date June 3, 2011

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Section 1: Agency Policy and Strategy

I. Agency Policy Statement

The Honorable Nancy Sutley
Chair, Council on Environmental Quality
730 Jackson Place, N.W.
Washington, D.C. 20503

Dear Ms. Sutley,

The Department of the Interior (Department) is fully dedicated, through its mission, to conserve and protect the nation's natural and cultural resources now and for future generations. Implementing sustainability in Department operations is consistent with and complementary to the Department's overarching mission. The Strategic Sustainability Performance Plan (SSPP) supports Interior's mission by integrating sustainability within Department operations and reducing our green house gas (GHG) emissions which, in turn, further demonstrates Interior's commitment to conservation, protection, and the responsible use of natural and cultural resources.

The Department is committed to meeting and or exceeding compliance with environmental and energy statutes, regulations, executive orders (EOs), other applicable requirements. This commitment is evidenced by the implementation of a department-level environmental management system (EMS) to manage and track progress on achieving the environmental and energy performance goals in EO 13514 and EO 13423.

The foundation for the department-level EMS is the Department's Sustainability Council (Council). The Council is chaired by me and supported by bureau and office Senior Sustainability Officers, an implementation committee, and technical work groups that include representatives from all bureaus and appropriate offices. The Council is the implementing and oversight body for the EMS and SSPP. The Department is also committed to addressing climate change and has made it a departmental High Priority Performance Goal. The Secretary has signed a Climate Change Adaptation Policy Statement and completed an Action Plan to begin managing the issues.

The Climate Change Action Plan outlines steps to assess the vulnerability of our resources, identify short and long-term management actions to deal with the changes, and will help us prioritize the collection and integration of key data as indicators of how climate change is affecting resources.

The Department is excited about the commitments we have made, the priorities we have set, and the resources we have identified to move us forward in our sustainability efforts. These efforts are integral to the Department's mission and we look forward to enhancing our ability to conserve, protect, and ensure the responsible use of our nation's natural and cultural resources. The dedicated employees of the Department are passionate about our stewardship responsibility for the resources and properties that we manage for the American People. To harness their creativity and energy, the Council will continue to foster opportunities for employees to submit their own ideas for improving sustainable practices at the Department. The creative input of all employees will continue to be invaluable as we work toward our ambitious sustainability goals.

Sincerely,

Rhea Suh
Assistant Secretary
Policy, Management and Budget

II. Sustainability and the Agency Mission

The U.S. Department of the Interior's mission is:

The U.S. Department of the Interior protects America's natural resources and heritage, honors our cultures and tribal communities, and supplies the energy to power our future.

The Secretary has identified the following initiatives for the Department. Each initiative supports the Department's mission and has elements that support sustainability.

- Increasing the potential for production and transmission of renewable energy resources on Department managed lands in balance with continued development of conventional energy and value for the public
- Establishing a working multi-bureau approach for climate change adaptation on our lands
- Enabling the capacity to increase water conservation
- Protecting and enhancing America's Great Outdoors and natural resources
- Strengthening Native American and Alaskan Native communities
- Fostering a greater sense of stewardship in our youth for natural and cultural resources

Additionally, the Secretary released a Priority Message to all employees on April 18, 2011 entitled "Earth Day and Interior's Commitment to Sustainability" which stated that, "Sustainability is integral to our mission because we are entrusted with stewardship of America's lands and waters."

The Secretary supported many of these initiatives with secretarial orders (SOs) some of which support the Department's sustainability efforts:

The SOs include:

- ORDER NO. 3294, Jan 6, 2010: Energy Management Reform. This SO establishes departmental policy regarding reform of its energy management. It also establishes the Energy Reform Team within the Office of the Assistant Secretary, Land and Minerals Management.
- ORDER NO. 3285A1, Feb 22, 2010: Renewable Energy Development by the Department of the Interior. This SO establishes the development of renewable energy as a priority for the Department of the Interior and establishes a departmental Task Force on Energy and Climate Change.
- ORDER NO. 3289A1, Feb 22, 2010: Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural

Resources. This SO establishes a department-wide approach for applying scientific tools to increase the understanding of climate change and to coordinate an effective response to its impacts on tribes and on water, land, fish and wildlife, and cultural heritage resources the Department manages.

- ORDER NO. 3297, Feb 22, 2010: Department of the Interior WaterSmart Program – Sustain and Manage America’s Resources for Tomorrow. The purpose of this SO is to secure and stretch water supplies for use by existing and future generations to benefit people, the economy, and the environment, and identify adaptive measures needed to address climate change and future demands.
- ORDER NO. 3290, Sep 24, 2009: Authorizes the Secretary to enter into grants, cooperative agreements, and other agreements to fund up to 50 % of the cost to plan, design, and construct improvements that will conserve water, increase water use efficiency, or enhance water management at existing water supply projects within states identified in the Reclamation Act of 1902, as amended.

For a full description of each Secretarial Order please visit:
http://elips.doi.gov/app_SO/index.cfm?fuseaction=chroList

As evidenced by the Secretary’s declaration of initiatives and supporting SOs, the Department is taking great strides to create a sustainability ethic that supports the Department’s mission. Reducing the Department’s environmental impact is another step in support of this government-wide effort. To ensure these initiatives are effective, they must be resourced adequately. Therefore, the Secretary has committed to the following in the FY 2011 budget:

- Implementing a comprehensive **New Energy Frontier** strategy that creates jobs, reduces the Nation’s dependence on foreign oil, and reduces climate change impacts.
- Confronting the realities of climate change and launching an integrated strategy for **Climate Change Adaptation**.
- Developing a 21st Century conservation agenda that protects **America’s Great Outdoors** through integrated ecosystem efforts and the Land and Water Conservation Fund.
- Tackling the water challenges facing the country with a new strategy to **Sustain and Manage America’s Resources for Tomorrow**.
- Engaging America’s **Youth in Natural Resources** to foster a greater sense of stewardship for natural and cultural resources.

- **Honoring trust responsibilities** with a focus on improving the quality of life for Indian communities.

Some of the challenges the Department faces in achieving the goals in this Strategic Sustainability Performance Plan (SSPP) include the dispersed distribution of the Department's programs and facilities; a widely varied mission with multiple responsibilities; and data collection, management, and verification requirements.

The map at the end of this section includes the extent of the land the Department manages.

The following statistics also illustrate the diverse mission of the Department:

- Manages approximately 20% of land area in the United States
- Manages approximately 70,000 employees and approximately 240,000 volunteers
- Serves approximately 480 million visitors per year
- Supports approximately 180 Indian Affairs schools and dormitories
- Produces 30% of U.S. energy
- Protects 1,900 endangered or threatened species
- Conducts scientific research on topics such as earthquakes, volcanoes, geology, water quality, and stream flows

This translates to Department ownership and operation of approximately 47,000 buildings, 112,000 structures, and 33,000 vehicles at 2,400 locations across the United States, Puerto Rico, and U.S. territories (FY 2009 Federal Real Property Profile). Examples of the Department's geographically dispersed, small, and remote work stations include:

- Bureau of Indian Affairs (BIA)
 - **565** federally recognized tribes with a service population of **1.9** million American Indians and Alaska Natives
 - **183** schools and dormitories educating approximately 42,000 elementary and secondary students
 - **30** tribal colleges, universities and post-secondary schools
 - **55** million surface acres and 57 million acres of subsurface trust lands
 - **18** million acres of trust forest land
 - **1,258** administrative buildings
 - **78** detention facilities
 - **15** revenue generating irrigation projects
 - **131** of the Department's 457 high and significant hazard dams
 - **60** million acres of wildland fire protection responsibilities

- Bureau of Land Management (BLM)
 - Manages **253** million acres of surface acres of public lands
 - Manages **700** million acres of subsurface mineral estate located throughout the country
- Bureau of Reclamation (Reclamation)
 - **476** dams
 - **58** hydroelectric power plants
 - **1,910** buildings maintained
- U.S. Fish and Wildlife Service (FWS)
 - **553** National Wildlife Refuges
 - Thousands of small wetlands and special management areas
 - **70** National Fish Hatcheries
 - **81** ecological services field stations
- Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)
 - Manages **1.7** billion outer continental shelf acres
- National Park Service (NPS)
 - **7,580** administrative and public buildings
 - **5,300** housing units
- Office of Surface Mining Reclamation and Enforcement (OSM)
 - Conducts oversight for the **24** coal-producing states that have assumed primary responsibility for regulating their surface coal mining operations
 - Works with **28** coal-producing states and tribes that have Abandoned Mine Land programs to correct environmental damage from past mining
- U.S. Geological Survey (USGS)
 - Rents **176** General Service Administration (GSA) buildings
 - **2,500** seismic monitoring stations worldwide
 - **7,600** stream-gauge field stations

For detailed information about the Department, visit:

<http://www.doi.gov/facts.html>.

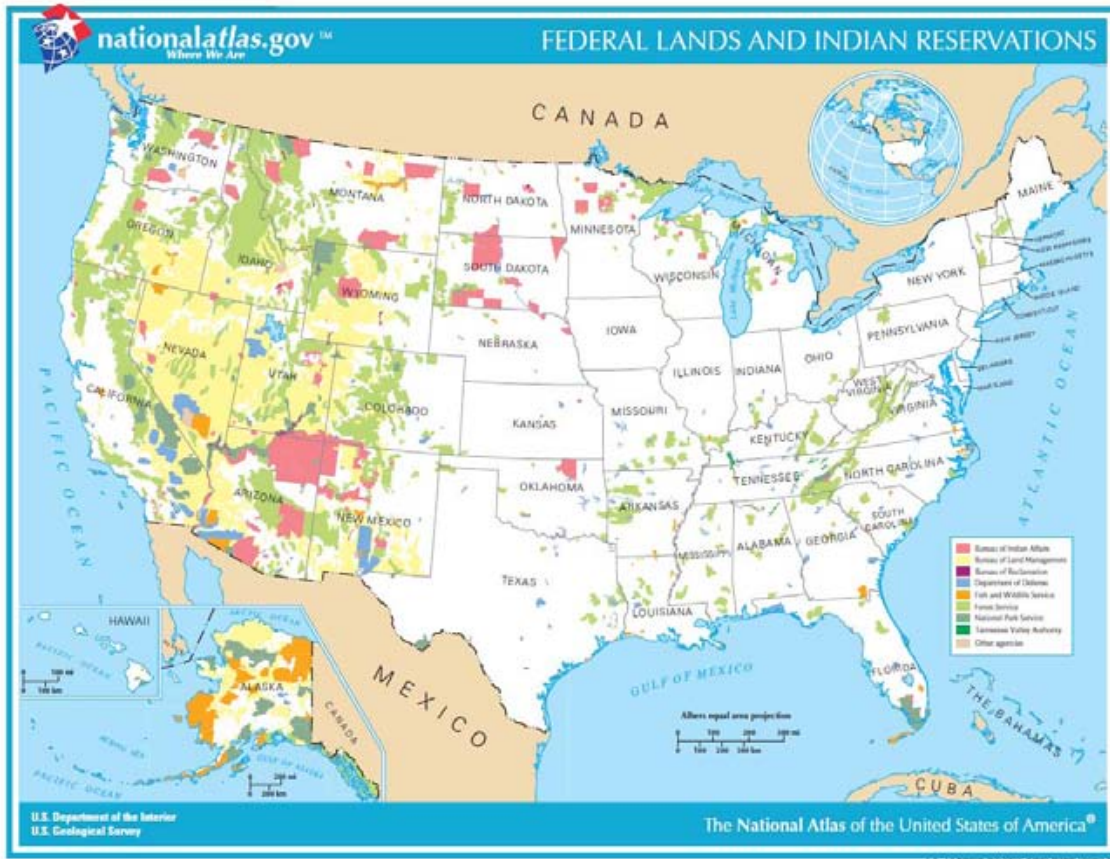
Implementing any uniform program across this culturally diverse and geographically dispersed Department is challenging.

The Department appreciates the opportunity to work with the Office of Management and Budget (OMB) and Council on Environmental Quality (CEQ) to address challenging resource issues (funding and or staff) associated with the SSPP goals and activities.

The table at the end of this section provides a summary of the Department's size and scope of operations. Note: Where the table references facilities, these are

buildings for the Department of the Interior. Also, “GSA leases” are provided by occupancy agreements and multiple agreements can occur in one building. Therefore, “Total # Facilities Leased (GSA lease)” represents the # of occupancy agreements. For the Department, “Total Operating Budget FY 2010” is the Total Budget Authority FY 2010.

Total # Employees	~70,000
Total Acres Land Managed	500,000,000
Total # Facilities Owned	46,021
Total # Facilities Leased (GSA lease)	1023
Total # Facilities Leased (Non-GSA)	294
Total Facility Gross Square Feet (GSF)	103,665,407
Operates in # of Locations throughout U.S.	2,372
Operates in # of Locations outside of U.S.	28
Total # Fleet Vehicles Owned	23,769
Total # Fleet Vehicles Leased	10,135
Total # Exempted-Fleet Vehicles (Tactical, Emergency, Etc.)	3,469
Total Operating Budget FY 2010 (\$MIL)	12,282
Total # Contracts Awarded FY 2010	89,429
Total Amount Contracts Awarded FY 2010 (\$MIL)	6,043
Total Amount Spent on Energy Consumption FY 2010 (\$MIL)	110
Total BTU Consumed per GSF	65,060
Total Gallons of Water Consumed per GSF	57.7
Total Scope 1&2 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO ₂ e	0.8351128
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 Reduction Target) FY 2008 Baseline MMTCO ₂ e	0.818656
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO ₂ e	0.3614084
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MMTCO ₂ e	0.3614084



III. Greenhouse Gas Reduction Goals

The Department of the Interior is committed to meeting the FY 2020 greenhouse gas (GHG) reduction goals it established as required by EO 13514. The Department's scope 1 and 2 GHG emissions reduction target is 20% relative to FY 2008, and the scope 3 GHG emission reduction target is 9.0% relative to FY 2008.

The Department's strategies to achieve scope 1 and 2 GHG emissions reductions by FY 2020 include:

- Reducing building energy intensity
- Reducing purchased electricity and increasing the use of renewable electricity
- Implementing on-site renewable energy generation projects
- Eliminating coal use
- Switching to natural gas, where available
- Reducing the use of fossil fuels in both buildings and fleet
- Consolidating the Department's data centers to reduce power consumption and cooling requirements of computer equipment

Specific strategies to achieve scope 3 GHG emissions reductions include:

- Reducing transmission and distribution losses through increased efficiencies in electricity consumption
- Promoting the use of lower-carbon travel alternatives for TDY travel
- Increasing the use of technology in lieu of face-to-face meetings, where possible, such as conference calls, videoconferences, and webinars
- Reducing solid waste through waste prevention, recycling and reuse
- Promoting use of mass transit, carpooling, bicycle use, teleworking, and other lower-carbon commuting alternatives

In FY 2010, the Department obligated \$158 million in facility energy and water efficiency improvements through direct obligations. The majority of this funding was from the American Recovery and Reinvestment Act (ARRA). BIA, BLM, FWS, NPS and USGS were the benefactors of this funding. It is anticipated that this investment will have significant positive impacts on reducing GHG emissions by reducing building energy intensity, and increasing the use of on-site renewable energy. Additionally, ARRA funding enabled the Department to place over 1,400 fuel efficient vehicles and hybrids in the motor vehicle fleet. We anticipate a reduction in petroleum consumption in FY 2011, partly based on the acquisition of these fuel efficient vehicles.

The Department believes that focusing on these strategies will allow us to reach our goals. A detailed discussion of goals and milestones are included in Section II of the SSPP.

IV. Plan Implementation

The Sustainability Council (Council) serves as the forum to address EO 13514 implementation by serving as the governing body of the department-level environmental management system (EMS). The Department has made, and will continue to make, significant progress developing the department-level EMS. The EMS follows the International Organization for Standardization (ISO) 14001 standard. The EMS is the Department's primary management tool to manage and address the impacts of activities on the natural and social environments, provide operational efficiencies for sustainable practices and environmental management, and proactively address future issues to reduce the Department's carbon footprint. The EMS is the Department's management tool for attaining the goals in the SSPP. The departmental EMS is scheduled to be completed by Q4 FY 2012. Sustainable practices are programs and goals identified in EO 13423 and EO 13514 including but not limited to electronic stewardship, sustainable buildings, energy programs, green procurement, waste management, fleet management, and GHG emission reduction efforts.

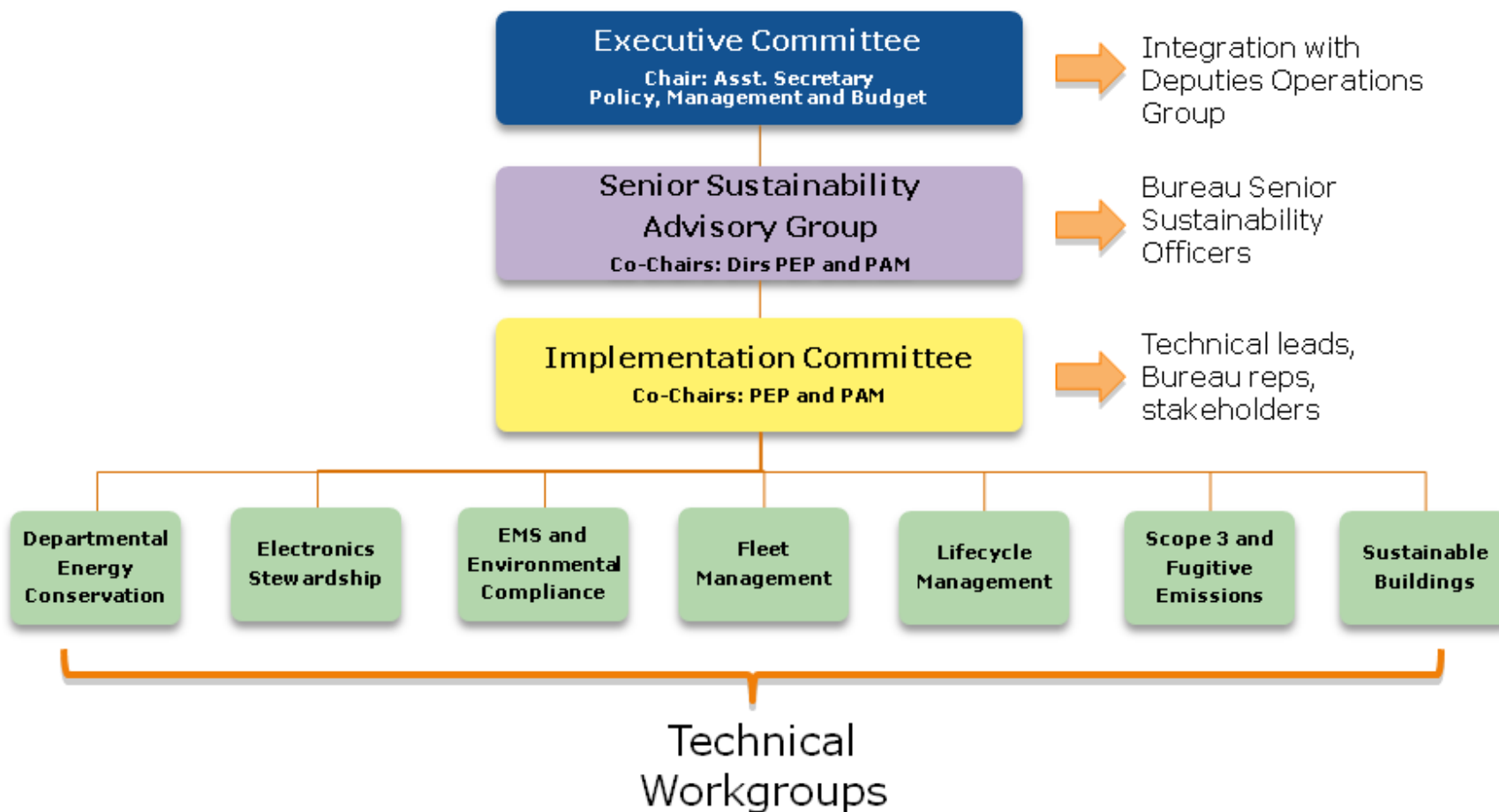
1. Internal Coordination and Communication

The Council is the governing body for the department-level EMS is the Sustainability Council (Council), see the organizational chart at the end of this section. The Council is a multidisciplinary, collaborative decision-making forum responsible for promoting and achieving departmental goals for sustainability and environmental compliance, and for facilitating development and implementation of the SSPP. The Office of Environmental Policy and Compliance (OEPC) leads coordination of the department-level EMS. OEPC and the Office of Property and Acquisition Management (PAM) share responsibility for management of Council activities including co-chairing the Implementation Committee and Senior Sustainability Advisory Group. OEPC staff provides staff support for the Council.

The Council is chaired by the Department's Assistant Secretary for Policy, Management and Budget (AS-PMB) who serves as the Department's Senior Sustainability Officer (SSO) and includes cross-functional representation from all stakeholders at all organization levels including departmental senior managers, bureau and office program managers, and technical work groups for sustainable practices and environmental compliance. The Council has a role in the development and management of the SSPP and department-level EMS, ongoing monitoring of the goals in the SSPP, and other regulatory and legal requirements that the Department manages through the EMS. It also addresses implementation challenges as they emerge. The solutions to challenges will be vetted through the Council's technical work groups and if not solved, the challenges will be evaluated further and addressed by the Council. Each Council component is discussed in the following sections.

Figure 1. Sustainability Council Organization

Sustainability Council Organization



A. Executive Committee

The Executive Committee provides broad policy direction to the Council. The Executive Committee consists of Deputy Assistant Secretary and bureau/office director-level participation through the Deputies Operations Group.

The Executive Committee is chaired by the Department's SSO. The Executive Committee will meet at least once a year to participate in the annual management review that is the culmination of the EMS planning, implementation, and review cycle. The Executive Committee may convene at other intervals as deemed necessary to address issues requiring high-level review or approval. The Executive Committee reviews, for the Department's SSO approval, the SSPP, departmental policy for sustainability and environmental management, and provides senior-level participation in regular operating matters of the Council through their representatives on the Senior Sustainability Advisory Group. The Executive Committee may be asked to address any issues that cannot be resolved by the Senior Sustainability Advisory Group.

B. Senior Sustainability Officers Advisory Group

The Senior Sustainability Officers Advisory Group (Senior Sustainability Advisory Group) is the liaison between the Executive Committee and the Implementation Committee. Representation on the Senior Sustainability Advisory Group consists of bureau and office SSOs. The Senior Sustainability Advisory Group is co-chaired by the Directors of OEPC and PAM. They meet monthly or as necessary, but no less than once a quarter, to provide senior-level guidance to the Implementation Committee on policy, procedures, and departmental goals and objectives for the EMS and SSPP, environmental compliance, and sustainable practices.

C. Implementation Committee

The Implementation Committee provides program-level support for developing and managing the Department's progress on sustainability-related EMS, SSPP, statutory, regulatory, EOs, Secretarial Initiatives, and other compliance and reporting requirements. Implementation Committee members represent their respective organizational and work group interests, promote operational consistency department-wide, and seeks to resolve impediments to timely advancement on sustainability and EMS goals. The Implementation Committee is co-chaired by OEPC and PAM. The Implementation Committee reviews the departmental EMS objectives and targets, monitors SSPP progress and contributes to the development of courses of action for emerging issues.

The Implementation Committee membership is comprised of approximately 25 members, including the technical work group chairs, bureau and office EMS representatives, and approximately eight additional members from other stakeholder groups including Budget, Asset Management, and Office of Planning and Performance Management.

D. Technical Work Groups

The Council Technical Work Groups (technical work groups) serve the Council by developing goals, objectives, targets, action plans and internal milestones for the goals in EO 13514. The technical work groups also identify and recommend courses of action to address technical challenges to the implementation of the departmental EMS and SSPP. Each technical work group chair serves as a member of the Implementation Committee. In addition to interim progress reports on EO and SSPP objectives and targets to the Implementation Committee, technical work group representatives serve as liaisons to field offices, identify challenges to successful advancement on metrics, and provide cross-media discussion of program planning.

The Council charter provides for the establishment of permanent and ad hoc work groups to address priority sustainability programs or projects identified by the Implementation Committee. There may be a need to establish additional ad hoc or permanent work groups to address emerging program requirements in the SSPP. The existing work groups include:

- Electronics Stewardship
- EMS and Environmental Compliance
- Energy Conservation
- Fleet Management
- Life Cycle Management (Green Procurement and Waste Management)
- Scope 3 and Fugitive Emissions
- Sustainable Buildings

2. Coordination and Dissemination of the Plan to the Field

The Council is the primary coordination and dissemination body for the SSPP, which is maintained on the Council SharePoint portal. Council members are responsible for internal dissemination to their respective programs and field offices. OEPC coordinates with the Department's Office of Communication (OCO) to ensure that additional outreach tools are adequate and reach all stakeholders and interested parties. Individual bureaus/offices will develop action plans to implement the departmental SSPP. Bureau/office-level action plans should align with the departmental EMS and will be approved by their bureau/office SSO.

The Department's OCO is responsible for supporting the long-term goal of promoting employee awareness of initiatives, policies, and personnel through conventional and new media. The OCO, in consultation with OEPC, is responsible for disseminating information about the SSPP. The SSPP is available to both internal stakeholders and outside interested parties. Examples of tools currently available or under development for dissemination include:

- Intranet – Provides a critical component for secure internal communications to employees from one convenient location and provides internal communication

mechanisms that foster connections between the Department's leadership and employees.

- Sustainability Council portal on SharePoint – Provides a portal for the Department's Sustainability Council, department-level EMS, and the SSPP. Information will be posted and made available to all employees and contractors with access to the Department's internal secure intranet system.
- Executive Messaging and Communication Plans – Provide employees with informative updates and calls to action from the Department's executives.
- Electronic Signage – Provides employees information and announcements using LCD screens in the lobbies of the Main Interior Building.

3. Leadership and Accountability

Leadership accountability for the success of the Council, department-level EMS, and SSPP ultimately rests with the Department's SSO; the AS-PMB. The SSO serves as Chair of the Executive Committee of the Council. Leadership accountability at the bureau level is addressed through senior executive membership on the Executive Committee.

Executive Committee member responsibilities are outlined in the Council charter and operating plan. Representative activities include: participating in the annual departmental EMS management review, reviewing the Department's policy, reviewing the annual SSPP update, and communicating with their senior-level representatives on the Senior Sustainability Advisory Group.

Executive Order 13423 – *Strengthening Federal Environmental, Energy, and Transportation Management* (EO 13423) requires the Department to include specific performance measures in agency performance evaluations of senior agency officials and relevant departmental staff working on environmental and sustainability issues. The Department currently conducts an annual Organizational Assessment (OA). The OA aligns with the structure of the Senior Executive Service (SES) performance plans. The Department fulfills this requirement by integrating performance measures for the department-level EMS into the OA.

A request has been made to have sustainability performance measures added to staff performance plans for those with clear environmental and sustainability responsibilities. Typically, these staff include environmental and energy professionals and their chain of command. The next step would be identifying staff whose actions are not directly environmental, but whose actions indirectly impact the success of the Department in achieving its sustainability goals. Generally, these positions would include fleet managers, real property and facility managers, and contracting officials, among others. The incorporation of sustainability performance measures into the second tier of professionals indirectly working on issues affecting sustainability will require additional consideration to generate implementation options.

The Department monitors and reports progress on sustainable practices and environmental compliance toward meeting the requirements in EO 13514, the Energy Independence and Security Act, and other legal and regulatory requirements. The Department uses both the OMB Scorecards and other performance tracking tools to monitor progress on sustainability programs including sustainable buildings, electronic stewardship, energy, fleet management, EMS, and GHG goals for scopes 1, 2, and 3.

The results of the OMB scorecards are briefed to leadership including the SSO, Bureau/Office SSOs, and the Deputies Operations Group. In addition to the OMB scorecard briefings, the concept of a departmental sustainable practices and environmental dashboard has been discussed with the AS- PMB and has conceptual support. An environmental compliance and sustainable practices dashboard available on SharePoint would provide department-wide access to information on the status and progress of the programs. The dashboard could be especially useful for senior leadership by providing a concise visual for the Department's status on the sustainability goals. The tool would be updated throughout the year as part of the Council oversight process.

4. Agency Policy and Planning Integration

Four primary avenues exist for integration of the SSPP and the Department's policy and planning processes. The following four-pronged approach outlines how the Department integrates sustainability goals into the mission, policy, and planning processes. The multifaceted approach facilitates the communication and integration of bureau and office input, which can often be challenging for a decentralized agency such as the Department. The foundation for the integration approach includes:

- Connection between the SSPP and the Government Performance and Results Act (GPRA) Strategic Plan
- Linking SSPP and the departmental EMS commitment statements
- Council involvement in the development and management of both the SSPP and department-level EMS
- Coordination with DOI Information technology Transfer (ITT) for Data Center Consolidation Planning

A. Strategic Plan and SSPP

The Department of the Interior Strategic Plan for Fiscal Years 2011-2016, required by the Government Performance and Results Act (GPRA), was updated in early FY 2011. SSPP measures contained in the Strategic Plan are:

- Increase alternative fuels consumption by at least 10% annually
- Reduce energy intensity 3% annually or 30% by 2015
- Increase square footage that meets the Guiding Principles for High Performance and Sustainable Design Green Building to 15%

The GPRA Strategic Plan provides the programmatic goals across the Department and its bureaus and identifies the performance measures that are used to track interim and long-term progress towards these goals. The Strategic Plan provides the Department with a road map for the next five years and is updated every three years to keep the plan current. As such, it is important that the sustainability strategies that are implemented through the SSPP and the GPRA Strategic Plan are mutually reinforcing. To strengthen the coordination of the SSPP and the achievement of the Strategic Plan's programmatic goals, the Office of Planning and Performance Management has a representative on the Implementation Committee to ensure consistency between the two plans. The expectation is that the coordinated development of the SSPP with the Strategic Plan and the high priority performance goals will result in better alignment of the two plans and the key sustainability performance indicators contained in each.

B. SSPP and EMS Commitment Statements

The department-level EMS Sustainability and Environment policy statement was signed by the Secretary of the Interior on May, 25, 2011 and reaffirms the commitment to the principles and goals of EMS and sustainable practices. The department-level EMS and the SSPP commitment statements are mutually reinforcing. The Department's ISO 14001 conformant policy statement reflects the commitment to:

- Preventing pollution and minimizing damage to the natural and human environment
- Complying with applicable federal, state, local, tribal and departmental laws, regulations, policies, and other requirements
- Establishing objectives and targets to promote sustainable practices and improve environmental performance throughout the Department. Objectives and targets will be aligned with federally established sustainability and environmental program goals, where appropriate
- Managing processes, systems, and technology to improve efficiency and productivity
- Measuring performance and identifying opportunities for continual improvement
- Documenting and communicating the Department's EMS Policy to all employees and the public

C. Council Management of SSPP and EMS

The Department established the Council to integrate sustainable practices and concepts into the missions of the bureaus/offices and promote a holistic approach to sustainable operations. The cross-functional, multi-level Council provides a forum for diverse stakeholders to address sustainability issues across program areas and break down programmatic stove pipes. The Implementation Committee includes representation of diverse stakeholders including bureau/office program managers, and subject matter

experts for sustainable practices, EMS, budget, communications, planning and performance management, and asset management. Each representative provides a channel of communication to their respective program area and facilitates coordination between sustainability goals managed by the Council and their program reporting and planning requirements (Table 1). The EMS is the primary management tool and facilitates the identification and tracking of departmental planning processes as well as institutionalizes the process through documented operating procedures.

Table 1. Critical Planning Coordination

The purpose of this table is to illustrate the relationship between the sustainability plan and other planning and reporting efforts across the agency. This table illustrates opportunities for integrating sustainability requirements into existing planning documents and vice versa.

Originating Report/Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
GPRA Strategic Plan	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Agency Capital Plan	Yes	No	No	Yes	No	Yes	No	No	No	No
OMB Circular A-11 300s	Yes	No	No	Yes	No	Yes	No	No	Yes	No
Annual GHG Inventory and Energy Data Report	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No
EISA Section 432 Facility Evaluations/Project Reporting/Benchmarking	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
Budget	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Asset Management Plan/3 Year Timeline	Yes	No	No	Yes	No	Yes	Yes	No	No	No
OMB Circular A-11 Exhibit 53s	Yes	No	No	Yes	No	Yes	No	No	Yes	No
OMB Scorecards	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
DOE's Annual Federal Fleet Report to Congress and the President	Yes	Yes	No	N/A	N/A	No	No	Yes	N/A	No

Originating Report/Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
Data Center Consolidation Plan	Yes	Yes	Yes	No	No	N/A	N/A	Yes	Yes	Yes
Departmental Environmental Management System	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Instructions for Implementing Climate Change Adaptation Planning	No	No	No	No	Yes	No	No	No	No	Yes
Sustainable Building Implementation Plan	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Electronic Stewardship Implementation Plan	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Affirmative Procurement Plan for Green Purchasing	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Solid Waste and Chemicals Management Report	Yes	Yes	Yes	Yes	N/A	N/A	Yes	No	Yes	No

N/A - Not Applicable

5. Agency Budget and Policy Integration

The Department recognizes that success in achieving the sustainability goals of EO 13514 requires integration of strategic sustainability performance planning with the Department's budget and fiscal processes. The Department provides annual policy and guidance on sustainability initiatives in bureau and office budget formulation. The Department has made significant progress linking budget formulation guidance to sustainability initiatives. For example, the Department's sustainable building program is fully integrated with building construction budget guidance so that every dollar spent on building construction helps move the Department toward compliance with sustainable building requirements.

Each year the Department formulates cross-cutting budget guidance which directs bureaus to allocate resources to priority programs, including support for sustainable practices. Three times a year the Department completes the A-11 Section 25 reporting as directed by OMB.

Current investment data for sustainable projects and initiatives are generally embedded in broader program categories and are difficult to identify. The guidance and process for identifying and integrating funding for SSPP activities into the Department budget is an emerging issue that requires the Department to evaluate a practicable budgeting scenario to collect accurate data while minimizing the administrative burden to report. The anticipated challenge will be to isolate SSPP goal-related funding from other program funding elements. The Department is considering how to effectively address the budget and financial requirements for the SSPP through new collaborations between technical, budget, and financial staff at the bureaus and offices, and between the Council and departmental EMS framework. The Department's Office of Budget (POB) and Office of Financial Management are members of the Council.

6. Methods for Periodic Monitoring and Evaluation of Progress

The Department has established a robust framework for oversight of its sustainability program. The framework uses the department-level EMS and Council to provide proactive and ongoing oversight of the SSPP, OMB Sustainability/Energy Scorecard, EMS at all appropriate organizational levels, and other legal and regulatory requirements. The Council has developed objectives and targets for each sustainability goal and progress in meeting the goals will be monitored through the departmental EMS. The Council is the primary body responsible for conducting the annual management review of the department-level EMS and SSPP, and the quarterly interim progress reviews (IPR). The Implementation Committee is responsible for conducting the IPRs and the EMS annual management review will be presented to the Executive Committee.

Semiannual or quarterly progress reviews will be conducted by the Implementation Committee to provide ongoing monitoring of EMS effectiveness and progress on

sustainability goals in the SSPP. At a minimum, the IPRs will occur biannually to coincide with the reporting of the OMB Scorecard submissions.

Data currently collected and tracked includes the annual energy, sustainable buildings, electronic stewardship, solid waste, sustainable acquisition, EMS, and transportation reports. The Department will conduct a gap analysis to determine any deficiencies between data currently collected and data necessary to monitor progress. If a deficiency is identified the Council will determine what data elements, frequency, internal controls, and formats are necessary to collect and report the data.

The Council technical work groups are responsible for addressing the technical aspects of sustainability programs and developing action plans and interim milestones for reaching the EO goals. Each technical work group chair is a member of the Implementation Committee and reports regularly (based on issues and data reporting frequency) to the Implementation Committee on the advancement of their respective sustainable practices program toward its SSPP goals and departmental interim milestones. Work group chairs will raise potential issues or impediments to timely program advancement to the Implementation Committee for resolution. If the Implementation Committee cannot resolve the issue, it is referred to senior management through the Senior Advisory Group and ultimately the Executive Committee.

Following the EMS model (plan, do, check, act) the Department will conduct an annual management review to evaluate progress on the implementation of the SSPP, and other legal and regulatory requirements addressed by the EMS. The department-level EMS will be fully implemented and the first management review is expected to be completed by Q2 FY 2012. The management review will be conducted in accordance with the departmental EMS procedure. The procedure will follow the ISO 14001 standard content which provides the following general framework for management reviews. At a minimum, the annual management review will include:

- Results of internal audits and evaluations of compliance with legal and other requirements to which the Department subscribes
- Relevant communications from internal and external parties
- Environmental performance
- Progress on departmental goals and objectives including SSPP goals
- Status of corrective actions, if applicable, and preventative actions
- Follow-up from previous IPRs or management reviews
- Changes to legal and other requirements that affect the sustainability and environmental goals

- Recommendations for operational improvements

V. Evaluating Return on Investment

The Department's Asset Management Program ensures that investments are aligned with departmental, bureau and office, and program missions and strategic goals. Assets and investments are prioritized based on the degree to which investments support mission needs and the achievement of strategic goals. The Department's Asset Management Plan (AMP) establishes a strategic direction for the management of assets within the Department's real property asset portfolio. The AMP addresses the life-cycle requirements of owned and leased buildings, structures, linear assets, the motor vehicle fleet, and non-stewardship land used for administrative purposes. The Department's Capital Planning and Investment Control (CPIC) for major constructed assets provides a process to ensure that constructed assets are well conceived, cost-effective, and support mission and business goals. In addition, the Department's Five-Year Deferred Maintenance and Capital Improvement Plan (the Five-Year Plan) implements the AMP, sets forth a mechanism to prioritize projects, and establishes the foundation for the CPIC process.

1. Economic Lifecycle Cost / Return on Investment

The Department makes decisions by considering mission related needs, strategic goals, return on investment, cost and schedule, and risk. The Department's CPIC guidance requires that a benefit-cost analysis be conducted prior to deciding whether to initiate, continue, or implement capital investment projects (including information technology (IT) and construction investments). CPIC benefit-cost analyses are intended to inform decision-makers about the potential consequences of proposed actions. The benefit-cost analysis includes estimates of the projected benefits and costs for each alternative. Costs and benefits are quantified and monetized where possible. Where benefits and costs cannot be monetized, they are discussed qualitatively. For example, the BLM prepares a biennial report titled "Public Rewards from Public Lands," which contains information about what BLM-managed public lands are worth - in economic, social, and environmental terms. Return on investment is another way to express the benefit-cost ratio. OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of federal Programs" provides the methodology and discount rates, updated annually, for Federal projects and is used to complete the OMB Exhibit 300 – Capital Asset Plan and Business Case Summary for major capital acquisitions.

The Department conducts life-cycle cost analyses to make decisions about investments in products, services, and other projects to determine costs over the total life cycle. Bureaus employ the guidance from the National Institute of Standards and Technology Handbook 135 – Life Cycle Costing Manual for the Federal Energy Management Program (FEMP). This guide implements the FEMP rule published in the Code of Federal Regulations (CFR) at 10 CFR 436, and establishes the methodology and criteria for economic evaluation of energy and water conservation projects and

renewable energy projects in all federal buildings. Discount factors and energy prices indices are updated annually for use with the handbook. Savings to investment ratios are also to be used to help rank projects competing for limited funds. While this handbook focuses on the requirements of FEMP life-cycle cost rules as they apply to federal buildings and facilities, the life-cycle cost methodology presented is consistent with American Society for Testing and Materials standards on building economics. In addition, many bureaus use the Basic Life Cycle Costing (BLCC) tool developed by the National Institute of Standards and Technology to calculate life-cycle costs.

For IT investments, the Department conducts a Cost Benefit Analysis (CBA) prior to deciding whether to initiate, continue, or modify an IT investment. The CBA examines the business processes that the investment will change and presents a quantifiable picture of those changed business processes. Simply put, if the changes in the business operational costs and any new benefits are greater than the project costs, the investment provides a positive return on investment.

2. Social Costs and Benefits

Currently, the Department does not provide a standard process to identify, quantify, and monetize social cost and benefits to be used during project analysis. However, water resource projects are required to conduct benefit-cost analysis in accordance with the "Principles and Guidelines." Where social cost and benefits can be quantified and monetized they are incorporated into the benefit-cost analysis. Otherwise, these benefits are discussed qualitatively and considered in the prioritization process relative to the Department's mission and strategic goals.

Social impacts are discussed in a broader sense in National Environmental Policy Act (NEPA) documents. These planning documents analyze various alternatives where environmental and social impacts are considered. Many of the Department's mission and program areas include social benefits and costs including the enjoyment of parks, refuges, public lands, and recreation areas, as well as the education of our Native American youth. The bureaus employ various modes to assess the social and economic benefits. For example, the BLM "Public Rewards from Public Lands," report contains information about what BLM-managed public lands are worth - in economic, social, and environmental terms.

The Department is in the process of revising its Environmental Justice (EJ) Strategic Plan. It is anticipated that the EJ Strategic Plan will include initiatives to integrate sustainability goals where possible and relevant to minority populations and low income populations. Additionally, when the new EJ Strategic Plan is issued, subsequent updates to the SSPP will integrate any relevant EJ Strategic Plan goals.

When evaluating return on investment, the Department intends to leverage its EMS to identify best practices and account for social costs and benefits. This issue will be presented to the Council that will develop recommended courses of action. The

department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

3. Environmental Costs and Benefits

The Department has fully integrated NEPA in its various planning processes in all its activities on lands and resources under its jurisdiction to promote good management practices and resource protection. For example, as a part of its planning process, bureaus prepare Resource Management Plans (RMPs), Comprehensive Conservation Plans, and General Management Plans that specifically incorporate environmental considerations pursuant to NEPA as well as other statutes such as the Clean Water Act, the Endangered Species Act, the Resource Conservation and Recovery Act, the National Historic Preservation Act, and others. Based on such analyses in their respective planning processes and environmental considerations, bureaus designate areas that may be off limits for future activities such as mining, exploration, etc. Each bureau has a planning process in place that is designed to ensure conservation and protection of species, critical and sensitive habitat, ecosystems, and resources and to manage resources in a way that promotes good stewardship consistent with its specific mission and responsibilities.

The Department and bureaus select Energy Star, FEMP-designated, and other energy-efficient products when acquiring energy-consuming products. These products provide a lower life-cycle cost and reduce energy or water consumption, which ultimately reduces the impact on the environment. In addition, the Department's bureaus and offices have begun assessing both new and existing buildings utilizing the Department's Sustainable Buildings Assessment and Compliance Tool, or a comparable bureau sustainability assessment tool, to identify compliance with the Guiding Principles for High Performance Sustainable Buildings. Implementation of these requirements has been incorporated into the Five-Year Plan. The Department requires that all Deferred Maintenance and Capital Improvements (DMCI) projects comply with the Guiding Principles as applicable within the scope of the project.

The Department strives to find win-win program benefits where not only do the Department's business process improve, but also accrue environmental benefits.

The Department intends to leverage its EMS to identify best practices and account for environmental costs and benefits. This issue will be presented to the Council to develop recommended courses of action.

4. Mission-Specific Costs and Benefits

For the Department's owned and leased real property assets, the Asset Priority Index (API) is one measure that helps provide a clearer link to mission for each existing and proposed building and structural asset in the Department's portfolio. API indicates the importance of that asset to the organization's mission. High API rating indicates that an

asset is mission critical while a low API rating indicates that an asset is not mission dependent. The API provides a guide in determining where to focus limited resources.

A more detailed discussion of API is included in the AMP.

5. Operations and Maintenance and Deferred Investments (Real Property Deferred Maintenance)

The ultimate success of improving the stewardship of constructed assets will be measured by the ability to direct the Department's limited resources to high priority assets, reduce accumulated deferred maintenance for facilities, and sustain the long-term mission delivery capability of its asset portfolio. The current five-year plan focuses on projects that stabilize, restore, or replace constructed assets that are mission critical or mission dependent and are in poor condition.

Project focus should be on the highest priority mission critical and mission dependent constructed assets with emphasis on critical health and safety needs. The five-year plan sets forth a mechanism using established criteria to rank these projects for funding. Categories for ranking projects include:

- Critical health and safety
- Critical resource protection
- Energy/Sustainability
- Critical mission
- Code compliance and
- Other deferred maintenance.

In addition to the API, all constructed assets must have a facility condition index (FCI) which indicates the deferred maintenance needs of the asset. It is the ratio of accumulated deferred maintenance to the current replacement value for a constructed asset.

As highlighted in the AMP, the Department utilizes the API/FCI analysis chart to identify where limited resources need to be focused, i.e., assets that are most important to mission delivery and are in the worst condition warrant funding. Judgment is necessary in situations of critical health and safety concerns for lower priority assets used by the public and employees.

The Department and bureaus are identifying properties that are critical to fulfilling the mission, maximizing the utilization of critical assets, and appropriately disposing of assets that no longer support mission critical needs or are no longer cost effective to maintain. The disposition of constructed assets can be a very complex and time-consuming process. These challenges may include the assessment of the asset's historic significance, and the identification of hazardous materials or safety concerns and its associated costs.

The Department's large inventory of cultural resources presents unique challenges. Cultural resources include historic buildings and structures, archeological sites, and cultural landscapes. Each bureau maintains a program to manage and protect its cultural resources. Prior to bureau operations and maintenance, cultural resource specialists evaluate cultural resources to assess adverse effects and develop mitigation strategies. They also develop strategic plans and guidelines to manage and maintain bureau cultural resources. These activities take into consideration the unique needs of cultural resources, which are very different from other real property assets, especially with respect to life cycle. The FCI for cultural resources must also take into account the intrinsic value and character of the asset. Such a process emphasizes the unique needs of the cultural resource, particularly historic structures and buildings with respect to their maintenance needs. It also emphasizes the use of historically accurate materials and workmanship when rehabilitation, restoration, or stabilization is necessary for long-term maintenance.

The AMP provides additional information on asset disposal and management of cultural resources, particularly historic properties as well as heritage assets.

6. Climate Change Risk and Vulnerability

Given its mission and geographic area of responsibility, the Department's programs are particularly focused on understanding and managing for potential impacts of climate change, such as:

- Shifting of native ranges of managed wildlife and invasive species, and disrupted or altered seasonal wildlife migrations
- Changes in precipitation patterns and regional climate in geographic areas of responsibility (major water resource availability, land use, wildland fire, and ecosystem and wildlife population health implications)
- Changes in sea level and weather patterns impacting coastal lands, ecosystems, wildlife, and natural resource utilization activities
- Changes in Arctic climate resulting in increased permafrost melting affecting energy resource infrastructure and increased human activity in Arctic regions and
- Shifting human populations and changes in land use needs due to regional climate, sea level, and water resource availability

These and other potential impacts could significantly change the Department's operational needs and management scenarios, as reflected in the FY 2011 Budget Request.

The Department's resource managers consider climate change to be the single most challenging issue they face. In order to equip them with the tools and strategies they need, the Department of the Interior's Climate Change Adaptation initiative will determine the causes and formulate solutions to mitigate climate impacts to lands,

waters, and natural and cultural resources. As the pre-eminent manager of lands and resources, the Department will leverage its experience and expertise in partnership with other governmental and nongovernmental entities. The Department's Climate Science Centers and Landscape Conservation Cooperatives will conduct and communicate research and monitoring to improve understanding and forecasting for those natural and cultural heritage resources that are most vulnerable to climate change impacts. The Climate Science Centers will synthesize existing climate-change-impact data and management strategies, help resource managers put the strategies into action on the ground, and engage the public through initiatives in education. The Landscape Conservation Cooperatives will engage the Department and other federal agencies, local and state partners, tribes, and the public to craft practical, landscape-level strategies for managing climate-change impacts within eight regions.

Links to the Department guides referenced in this section are:

CPIC <http://www.doi.gov/pam/CPICguide62107.pdf>

The Department AMP <http://www.doi.gov/pam/DOIAssetPlanVer3.pdf>

Five-Year Plan http://www.doi.gov/pam/2012_Att_G_Final.pdf

NIST Handbook http://www1.eere.energy.gov/femp/information/download_blcc.html

FY 2011 Budget in Brief <http://www.doi.gov/budget/2011/11Hilites/toc.html>

FY 2012 Budget in Brief <http://www.doi.gov/budget2012/12Hilites/overview.pdf>.

VI. Transparency

The Department is committed to open and transparent communication and decision-making in all aspects of the program management. This approach is integral to the organization and operation of the Council. The department-level EMS will provide a procedure to standardize communications between the Department and internal and external stakeholders.

Sustainability Council Operation

Reflective of the importance for an open and transparent decision-making process for the Department's Sustainability program are the following considerations that have been addressed through the organization and operation of the Council:

- Vertical integration of information and communications from the field to senior leadership and from senior leadership across the Department through multi-tiered representation on the Council.
- The Council strives for consensus-based decision making with bureau and office representatives working on environmental compliance and sustainable practices.
- Department employees and contractors with access to the Department intranet can access information on the departmental EMS and the Council. Bureaus, offices, and sustainable practices technical work groups are encouraged to establish a presence on the Department's Sustainability portal to facilitate access to information-sharing.

- The department-level EMS provides a communication procedure to standardize communications between the Department and internal and external stakeholders.

Internal and External Communication with Stakeholders

The communication outreach tools for use with internal stakeholders are covered in Section IV of the SSPP. The Internal Communications team within the Department's OCO is responsible for supporting the long-term goal of promoting employee awareness of Department initiatives, policies, and personnel through the use of conventional and new media.

In the spirit of the Administration's commitment to transparency in government, OMB requires that agencies post the SSPP and the Sustainability/Energy Scorecards publically. The Department posted the FY 2010 SSPP and will post the FY 2011 SSPP and the OMB Sustainability/Energy Scorecard on the Greening the Department of the Interior public website: <http://www.doi.gov/greening/>. Additionally, these documents will be posted on the Department's intranet at <http://oneinterior.doi.net/index.cfm>.

The active participation of all Department employees is critical to the success of sustainability initiatives. In addition to formal channels of communication among Council members and the organizations they represent, the Department engages in regular communication with employees to solicit input, celebrate successes, and increase employee awareness of sustainability goals and tools. Details about employee engagement strategies can be found in Section 2 of the SSPP (Goal 8: Agency Innovation).

Section 2: Performance Review & Annual Update

I. Summary of Accomplishments

Energy, Sustainable Buildings and Greenhouse Gas Emissions

- BIA Southwest Indian Polytechnic Institute (SIPI), Albuquerque, New Mexico, installed a 40 kilowatt photovoltaic system on the Administrative Building using ARRA funding. This system will offset SIPI's purchased electricity by 72 megawatt-hours annually. SIPI also replaced three large steam boilers with five hot water boilers which greatly reduced the natural gas consumption. The project included replacement of 1200 feet of leaking chlorinated polyvinyl chloride piping with steel piping.
- BIA completed the construction of its net zero energy Nazlini Fire Station in March 2011.
- BLM implemented 17 advanced meters at numerous facilities to monitor electricity use.
- BLM awarded the third and final phase of their Energy Savings Performance Contract (ESPC) on March 31, 2010. On-site work began in Q3 FY 2010 with completion scheduled in Q1 FY 2012. This phase will improve energy efficiency in facilities in Alaska, Arizona, California, New Mexico, Texas, and Utah, as well as implement 900 kilowatts of renewable energy systems. BLM began using ESPC in FY 2006 for a pilot project with Johnson Controls, Inc., at the National Interagency Fire Center and BLM's Boise District Complex, Idaho. BLM awarded phase two of the ESPC task order for 105 facilities across six states in FY 2007.
- BLM's Red Rock Visitors Center – 9,370 sf Leadership in Energy and Environmental Design (LEED) Gold building. The owned BLM building includes solar energy installation, solar water heating, gray water re-use and rain water collection systems.
- BLM's New Mexico State Office – 41,320 sf LEED Gold building. The building is a leased facility that was first occupied in 2010.
- BLM's Fillmore Field Office – 10,000 sf LEED Gold building. The owned building includes a 18 KW solar installation, solar water heating, and daylighting that includes tubular skylights throughout.
- BLM released a revised Sustainable Buildings Implementation Plan (SBIP) in Jan 2010 that included the latest federal guidelines for sustainability including EO 13514.
- FWS utilized ARRA funding to complete various energy efficiency projects at numerous locations:

- Alchesay-Williams Creek National Fish Hatchery, Arizona, installed new light fixtures, windows, thermostats and doors, as well as replaced insulation, and weatherizing piping.
 - National Conservation Training Center, West Virginia, installed lighting occupancy sensors, solar water heating system, water efficient toilets, ENERGY STAR® kitchen equipment, low flow showerheads and faucets aerators, and replaced the corroded cooling towers with new energy and water efficient units. In addition, a systematic re-commissioning of the HVAC system will be conducted to improve the efficiencies of the system.
 - Energy audits are being conducted throughout the FWS regions.
 - In addition, ARRA funded the replacement of heating, ventilating, and air conditioning systems at Bears Bluff National Fish Hatchery, South Carolina, Edenton National Fish Hatchery, North Carolina, Greers Ferry National Fish Hatchery, Arkansas, Mammoth Spring National Fish Hatchery, Arkansas, Orangeburg National Fish Hatchery, South Carolina, and Welaka National Fish Hatchery, Florida.
- FWS Assabet River NWR, Massachusetts, completed the construction of a new 6,670 square-foot Visitor Center. The green building uses a geothermal HVAC system and solar PV electric power. In addition, the visitor center site includes two solar PV-powered gates and several solar PV lights in the parking lots.
 - FWS Farallon NWR, California, implemented a solar PV system as its primary source of power, which has reduced diesel fuel consumption by 90%.
 - DOE recognized two FWS teams for Sustainable Design/High Performance Buildings. Neither building sought a LEED score by the U.S. Green Building Council (USGBC). See Goal 1 for a description of these projects.
 - FWS published a new Fish and Wildlife Service Manual chapter, 565 FW 1, Implementing Sustainable Practices on April 28, 2010. This chapter establishes policy for implementing sustainable practices and achieving the Service's goal of carbon neutrality by 2020 through management of activities impacting the environment, energy, and transportation. The chapter lists specific objectives and targets to assist the Service in achieving sustainable practices (by carbon neutral emphasis area), defines key programmatic practices, and includes examples of individual practices that promote the Service's sustainability goals. Additionally, the chapter addresses the variety of sustainable issues impacting facility design and construction (e.g., recycled content, construction waste management, energy efficient design, interior air quality) contained in the Guiding Principles for High Performance and Sustainable Buildings (Guiding Principles).
 - The National Business Center purchased 4,681 megawatt hours of renewable electricity through a GSA area-wide contract from landfill gases and wind-

generated power, which provided 26 percent of the Main Interior Complex's electricity.

- In 2011 NBC completed a contract to install blast mitigation windows in the Main Interior Building. The project is scheduled to begin in 2012 and installation of these windows will result in energy savings for the Department.
- In FY 2011, NBC contracted through GSA to install a green roof on the entire Main Interior Building.
- Since May 2010, NPS completed 94 facility-level GHG emission inventories at National Parks across the country, bringing the total number of park-level GHG emission inventories to 164. Currently, two entire NPS regions, the Pacific West Region and the Intermountain Region, have completed GHG inventories at all appropriate park facilities. In addition, 37 new parks completed Climate Action Plans, wherein they delineated strategies to reduce their GHG emissions and educate our large visitor population about climate change and sustainability. Specifically, action plans include actions that reduce waste and pollution; conserve electricity, or increase renewable electricity sources; reduce petroleum use; reduce wastewater; and educate visitors. This brings the total number of Climate Friendly Parks to 61.
- NPS held 7 Climate Friendly Parks action planning workshops, educating over 200 NPS staff and partners about the effects of climate change.
- Seventeen National Park units purchased 9,100 megawatt hours of renewable electricity from their utility providers. Most notably: the National Mall, Washington, DC; Grand Teton National Park, Wyoming; Rocky Mountain National Park, Colorado; Mesa Verde National Park, Colorado; and Lincoln Home National Historic Site, Illinois.
- In FY 2010, NPS Lava Beds National Monument, California, installed a 5.6 kilowatt grid-tied photovoltaic system on the Visitor Center. In addition, old inefficient T-12 lighting fixtures in the five administrative and maintenance buildings were replaced with more energy efficient T-8 fixtures and switches with occupancy sensors. These improvements are expected to reduce energy use at the facility by 40%.
- NPS in partnership with the University of Akron installed a 2.5 kilowatt wind turbine at Cuyahoga Valley National Park, Ohio. The wind system was designed, installed, and monitored by students.
- NPS Yosemite National Park, California recently completed, December 2010, the largest grid-connected photovoltaic system in the National Park Service. This 539 kilowatt system will generate nearly 970 megawatt-hours of electricity annually. The solar panels are installed at the El Portal Maintenance Complex on the roofs of existing buildings and on newly constructed shade structures in which government vehicles will be parked under.

- In FY 2010, Reclamation formed a Reclamation Renewable Energy Working Group to encourage the incorporation of other renewable energy to complement hydropower production at facilities and investigate the feasibility of developing additional hydropower on existing dams and canals.
- Reclamation in partnership with Xcel Energy installed a 9.8 kilowatt photovoltaic system at Alamosa Field Division, New Mexico. This system will produce enough electricity to offset approximately 10% of the Field Division's electricity use.
- Reclamation and Bonneville Power Administration installed energy efficient lights in more than 10,000 fixtures at Grand Coulee Dam on the Columbia River. The combined energy savings means the 6,809-megawatt dam – the largest power plant in the country – is delivering about one additional megawatt of renewable energy to the region. The nearly 9 million kilowatt hours of added electricity per year could power nearly all U.S. household televisions tuned into the Super Bowl. The Environmental Protection Agency's Region 10 based in Seattle recognized the \$1.2 million lighting retrofit with its 2010 Champions of Environmental Leadership and Green Government Award at the annual Federal Green Challenge Symposium in Portland.
- Reclamation and USGS purchased 31.3 million Btu of geothermal heat at the Snake River Area West office building in Boise, Idaho. The geothermal heat (purchased hot water) is the primary heating source for several buildings on campus.
- In August of FY 2010, Reclamation facilitated completion of 19 third-party, sustainable building assessments. The assessments evaluate buildings against Guiding Principle requirements for integrated operations, energy and water consumption, green materials, and indoor environmental quality; identify current condition and deficiencies; and propose recommendations to achieve compliance. Reclamation is the first bureau (and perhaps Federal organization) to perform assessments primarily focused on the Guiding Principles.
- In November, 2010, Reclamation's Commissioner issued Reclamation Manual Policy, Sustainable Buildings, ENV-P08 <http://www.usbr.gov/recman/env/env-p08.pdf>. ENV-P08 directs Reclamation executives responsible for management of building assets to meet Federal sustainable building requirements for new construction, existing buildings, and direct leased buildings.
- In January, 2010, Reclamation's Commissioner issued a SBIP. This initial SBIP, developed by a cross-program Sustainable Buildings Team, communicates Federal sustainable building requirements to meet Guiding Principles for High Performance and Sustainable Buildings (Guiding Principles) at applicable buildings and outlines Reclamation's strategy and action plan for achieving compliance.
- Reclamation received ARRA funding to build a "green" office building in Boulder City, Nevada to house approximately 170 employees of the Lower Colorado (LC)

Region. The two-story general office use building will be approximately 45,000 gross square feet. This building is located adjacent to and within the view-shed of the Boulder City Historic District listed in National Register of Historic Places. Reclamation utilized an integrated-team approach to obtain a building design that will achieve the Guiding Principles, LEED Platinum certification, as well as incorporate features that are compatible with the Boulder City Historic District and existing surrounding buildings. Construction has begun and the building is scheduled to be completed in the fall, 2011. This will be the first such building to meet both the Guiding Principles and LEED Platinum in the Bureau of Reclamation and the third such building to meet LEED Platinum in the Department of the Interior.

- USGS installed LED lighting in the Newell Building at the Idaho Water Science Center, Idaho. This project was completed in partnership with Idaho Power and Light.
- USGS completed the high-bay lighting project at the National Center in Reston, Virginia.
- The USGS Great Lakes Science Center in Ann Arbor, Michigan had its first full year of energy savings from the DOE Super ESPC in FY 2010. The project included an innovative geothermal heat pump hybrid system with variable frequency drives and direct digital controls were installed along with energy efficient lighting and water saving devices. The first year savings were a 24 percent reduction on energy use, a 31 percent reduction on energy costs, and a 68 percent reduction on water consumption.
- USGS completed the DOE Super ESPC at the Southeast Ecological Science Center in Gainesville, Florida, in Q1 of FY 2010 and three quarters of savings were accrued. This project covered an HVAC and control system replacement, energy efficient lighting upgrades, roofing upgrades, and installation of a solar energy system. FY 2010 energy consumption at FISC was 17 percent less than FY 2009.
- USGS signed an ESPC task order In FY 2010 at the National Wildlife Health Center in Madison, Wisconsin, valued at \$7.15 million, \$6 million of which is ARRA funded projects. The estimated annual energy cost savings of the ESPC is \$83,187 with a payback period of 13 years. The estimated annual energy consumption savings is targeted at 5,594 MMBtus or 19.3 percent. New renewable energy technologies will provide 3.6 percent of the site electricity consumption.

Fleet Management

- The Department is developing guidance to identify and manage fleet inventory

- The Department exceeded the alternative fuel acquisition goals required in the Energy Policy Act of 1992 / 2005
- The Department exceeded the 2% petroleum reduction goal
- The Department met the 10% alternative fuel increase goal
- The Department acquired over 1,400 vehicles through the ARRA, replacing older, less fuel efficient ones with more fuel efficient vehicle, hybrids, and AFVs
- The Department maintains a fleet of over 1,300 hybrid vehicles, reducing its petroleum consumption and dependence on foreign oil
- FWS used 2.8 million gallons of petroleum fuel in FY2010, a 2% decrease from the previous year and in line with reductions required in EPACT of 2005.
- NBC decreased its vehicle inventory from 41 to 37 vehicles. Six of these vehicles are fuel efficient hybrids, and 11 vehicles are alternative fuel E-85/Ethanol powered. NBC's petroleum usage decreased by 3.2%.
- NBC initiated a contract with a DC Bike Share Program for DOI employees. In addition, NBC installed additional bike racks/showers for employees at the Main Interior Complex and began the process to establish a DOI-wide bike subsidy program.
- Reclamation acquired 24 alternative fuel vehicles in FY 2010.

Water Conservation

- BLM installed low flow fixtures at Oregon Trail Center, Shoshone District Office, Surprise Field Office and Elko Field Office through ESPC program.
- FWS Abernathy Fish Technology Center, Washington, rehabilitated the water meter system utilizing American Recovery and Reinvestment Act funding.
- FWS Hopper Mountain NWR, California, repaired a total of 2,000 feet of 20-30 year-old, deteriorated, broken, and fire-damaged domestic water lines from a cistern to a water tank. These water lines gravity feed to four living quarters, four hydrant lines, and a condor flight pen.
- FWS J. Clark Salyer NWR, North Dakota, replaced domestic water lines which were caked with buildup thus reducing the water flow.
- NBC installed aerators, which reduce flow rate, to all faucets in kitchens and restrooms at the Main Interior Complex. In addition, NBC disconnected the in-ground sprinkler system at South Interior Building.

- Reclamation Snake River Area Office in Boise, Idaho, has installed metering to monitor its use of irrigation water and has replaced conventional watering with drip irrigation in planters.
- Reclamation Lower Colorado Region All-American canal was lined. This eliminates the loss of water due to seepage, thereby reducing the amount of water required to meet water deliveries to Irrigation Districts. Other facilities in Reclamation's Lower Colorado Region have replaced water-loving vegetation with drought resistant varieties.
- Reclamation Klamath Basin Area Office in the Mid-Pacific Region thoroughly reviewed commercial water delivery records and discovered a 25 gal/hr leak. Repair of the leak in FY 2011 will result in a savings of 218,400 gal / yr
- USGS installed a new energy efficient cooling tower equipped with variable speed motor controls at the Western Fisheries Research Center in Seattle, Washington. This unit is expected to result in significant water reductions for the Center.

Pollution Prevention and Waste Reduction

- The Department is developing a Strategic Sourcing Initiative for Recycled Paper which will create a BPA for printing and copier paper. The final BPA will likely be a mandatory source and require that vendors only provide 30% post-consumer recycled content paper to the Department.
- BLM developed a Hazardous Materials Environmental Compliance Guide for Field Managers that included preventive measures for pollution prevention and recycling in FY 2010.
- BLM developed training for managers to reduce acquisition, use and disposal of toxic and hazardous chemicals.
- BLM issued an Instruction Memorandum for Bureau-wide Pollution Prevention and Recycling Policy.
- FWS staff at Theodore Roosevelt National Wildlife Refuge (NWR) Complex (Complex) in Yazoo City, MS, have been gathering scrap metal and excess equipment and recycling since 2008. Over 169,309 pounds of scrap metal was collected from three Refuges and sold to recycling plants. In all, scrap and excess equipment removed from the Complex since 2008 totals over 981,280 pounds. At Panther Swamp NWR, part of the overall Complex, over 3,000 cubic yards of concrete in piles were left by a previous landowner. For disposal employees found a contractor that could crush the material so that it could be used for Refuge roads and trails. This innovative approach saved the Refuge money, provided needed construction material, and allowed the site to be cleared of the debris in preparation for the construction of a new LEED certifiable office.

- FWS James River and Presquile NWRs introduced a new recycling program titled "Excess to Asset" which ties groups of volunteers, interns, and staff to a recycling and repurposing effort to clean refuge lands. The program resulted in the removal of thousands of pounds of debris, excess equipment, and recyclables from previously impacted habitats.
- In FY 2010, NBC introduced the Somat system to manage compostable waste in the Main Interior Complex in Washington, DC. This system pulps and dehydrates all compostable materials resulting in a dry soil amendment. The soil amendment is then hauled from the Main Interior Complex to a commercial composting facility to complete the composting process. In turn, the Main Interior Complex purchases compost from that facility for use in its organic garden.
- NBC distributed 52 bins to break rooms, kitchenettes and elevator lobbies in the Main Interior Complex to collect compostable materials that employees might have brought from the cafeteria to their offices. All service ware used in the cafeteria is compostable.
- In the area of hazardous and toxic chemicals management, the NPS National Capital Region (NCR) has worked with a concessioner, Golf Course Specialists (GCS), to make environmental management strides at three golf courses in the NCR - East Potomac Golf Course in National Mall and Memorial Parks, Langston Golf Course in National Capital Parks East, and Rock Creek Golf Course in Rock Creek Park. Approximately 130,000 golf rounds are played annually by the public at these properties. All three golf courses received Audubon Cooperative Sanctuary Certification in FY 2010. GCS took a holistic approach to Integrated Pest Management (IPM) and land management practices in this urban golf environment in cooperation with the parks. GCS created and enhanced native habitat areas to protect and sustain wildlife and plant species over a combined 40 acres at the three golf courses, representing approximately 7% of the total area managed by GCS. GCS also:
 - Piloted the non-synthetic and lower toxicity horticultural oil, Civitas Mineral Oil, as a fungicide on the putting greens to target the common pest of anthracnose. This application represented an annual reduced usage of a synthetic product by approximately 7%.
 - Expanded the use of organic fertilizer on all putting greens to equal approximately 48% of all fertilizer applied, thereby reducing the annual use of petroleum-based fertilizer by 3.42 tons.
 - In support of the Chesapeake Bay Program Partner goals, reduced annual use of nitrogen by 50% to 2lbs per 1,000sf, phosphorous by over 60% to .75 lbs per 1,000sf, and potassium by 50% to 2lb per 1,000sf. Also expanded the use of slow release fertilizers and foliar fertilizers supplemented with micronutrients for spoon feeding greens. All of these practices contributed to the annual reduction in fertilizer application by 21.45 tons.

- In FY 2010 the NPS Headquarters integrated pest management (IPM) program coordinated with the Midwest Region (MWR) IPM Program to launch a MWR Pilot Turf Stewardship Project in 3 Parks (Fort Scott NHS, Herbert Hoover NHS, and Central High School NHS). A General Agreement was prepared between Beyond Pesticides, a non-profit organization and MWR parks, to review current turf management strategies of the pilot parks and assist them in developing best management strategies to promote excellence in turf stewardship. The ultimate goal is to prevent pollution and eliminate waste through the implementation of IPM and other appropriate landscape management practices.
- The Reclamation Great Plains Region has selected chemical storage and handling as an Environmental Managements Plan (EMP) as part of their EMS. The plan called for a 100 percent chemical inventory of all facilities by the end of FY 2010 and the region met this commitment. They are including a thorough review of the chemical inventory program in accordance with the FY 2010 GP EMP. The EMP calls for an inventory for 100 percent of their facilities by the close of FY2011.
- The Reclamation Dakota Area Office has increased the use of SharePoint sites to reduce their paper use and through these sites has emphasized increasing the amount of mixed paper recycled. They have also entered into a service contract to for onsite recycling and taking over that responsibility from GSA.
- The Reclamation Yuma Area Office: A paving project contract reused 1,100 cubic yards of old asphalt for road base material.
- The Reclamation LC Region has also developed a form and process for review of purchases to identify hazardous and toxic chemicals and to reduce their acquisition, use, and disposal. The LC Regional Office will continue to improve facility tracking of recycled materials as computer equipment, pallets, and car/truck batteries.
- USGS Oregon Water Science Center was recognized by Portland's Recycle at Work Program by certifying them as a partner in the program.
- USGS Southeast Ecological Science Center in Gainesville, FL, recycled 100 percent of the old Chemical Storage Building.
- In FY 2010, the USGS took great strides to reduce the purchase and disposal of toxic and hazardous chemicals. Listed below are some examples of these efforts.
 - The USGS Hydrologic Instrumentation Facility instituted the practice of reducing all chemical inventories by 10 percent per year, purchasing minimum amounts of product as needed, purchasing recycled products when available, and recycling as many products as possible.

- USGS laboratories are utilizing alternative methods and technologies in order to reduce the chemical usage and disposal, and to substitute toxic chemicals with environmentally friendly chemicals.
- USGS implemented tracking mechanisms at various sites to ensure existing chemicals are completely consumed prior to the purchase of additional chemicals. This mechanism is also used to promote chemical sharing with other USGS laboratories and avoid duplicate ordering. Additionally, some locations instituted a streamlined approach to acquisition. A primary point-of-contact purchases all chemicals. This person also maintains an inventory to avoid duplicate purchases or purchases of excessive quantities.
- USGS sites performed annual training for all hazardous materials users emphasizing reduction of hazardous materials use, as well as the proper storage, handling, and disposal.
- USGS Centers, like the New Jersey Water Science Center, made an executive decision to only perform projects or experiments that do not require the purchase of toxic and hazardous chemicals. If there is a need for the purchase of toxic and hazardous chemicals, the minimum amount required to complete the project or experiment is acquired.

Sustainable Acquisition

- BLM began providing training session on green purchasing mandates in FY 2010
- BLM's Space Leasing Group revised its standard specification in FY 2010 to include the "green" janitorial services and lighting maintenance specification in the BLM Green Purchasing Plan.
- NPS Contracting Office bolstered its green procurement web page to provide substantive alerts to procurement staff about green purchasing requirements.
- Reclamation Great Plains Region: Purchase card holders report every green purchase and totals are reported by fiscal year.
- USGS Office of Acquisition and Grants produces monthly newsletter which includes discussions on sustainability and green purchasing issues, news, and suggestions.

Electronics Stewardship and Data Centers

- The Department has had an interdisciplinary Electronics Stewardship Task Force with co-leadership and coordination of all disciplines necessary for electronics stewardship policy development and implementation since 2006.

- Department-wide Strategic Sourcing Initiative for Multifunctional Printing Devices contract requires all machines to be Energy Star and programmed at the manufacturer with duplex printing as the default factory setting.
- Department-wide Strategic Sourcing Initiative for IT Hardware contract included Energy Star requirements and was the first government contract to use the Electronic Product Environmental Assessment Tool (EPEAT) criteria, making the Department EPEAT and Energy Star compliant since 2005.
- In addition to consolidating four data centers during Calendar Year 2011, DOI identified opportunities for cost avoidance in four metropolitan areas. Bureaus are actively engaged in consolidating circuits and services in buildings where they are co-located during planned or forced moves. Cost avoidance includes cost associated with duplicative phone systems, duplicative server rooms, and duplicative Wide Area Network suites of equipment.
- The Department has completed analysis of geographic dispersion of Data Centers and proposed overall concept of operations.
- The Department, as of April 8, 2011, has consolidated 4 data centers targeted for consolidation in the first half of FY 2011.
- The Department is engaged with subordinate organizations to develop and validate plans for additional data center consolidations.
- BLM provided a Greening IT presentation to its senior management, which focused on energy savings associated with reducing the number of data servers at the BLM's National Operations Center in Denver, Colorado.
- FWS virtualized approximately 40 servers and will continue this effort.
- NPS worked with DOI as well as internal working teams to implement thin clients (desktop users) to save power and better utilization of hardware with longer refresh in FY 2010.
- Reclamation prepared initial guidance on implementation of duplex printing.
- Reclamation distributed a Bureau-wide Directive and Standard (D&S) on 4-year PC Life Cycle Management.
- Reclamation completed the Federal Electronic Challenge.
- Reclamation updated the existing Directive and Standard on IT Asset Disposal to address requirements of Executive Order 13423.
- USGS implemented power management (PM) for computers and monitors at the John Wesley Powell building in Reston, VA.

II. Goal Performance Review

The Department is using EMS as the management structure and planning process for developing targets, objectives and management plans for executing milestones and supporting activities to achieve the EO goals in the SSPP. The technical work group chairs and co-chairs received EMS training, including fundamentals for developing targets and objectives to ensure process consistency across the technical working groups. After the work group chairs were trained, they led their respective work groups in planning sessions to develop targets, objectives and management plans.

As planned in the FY 2010 SSPP, each workgroup chair briefed the Council Implementation Committee on the proposed targets, objectives, and milestones for their SSPP goal area(s). The Implementation Committee reviewed the proposed targets and objectives and provided feedback to the technical work groups. Once targets and objectives are adopted by the Council, work group chairs will brief the Implementation Committee quarterly on the progress including potential impediments to timely progress.

An EMS annual management review is scheduled for completion by the end of CY 2011.

1. GOAL 1: Scope 1 & 2 Greenhouse Gas Reduction

A. Goal Description

The Department established a FY 2020 scope 1 and 2 GHG emissions reduction goal of 20 percent relative to FY 2008. The Department owns and operates approximately 47,000 buildings, 112,000 structures, and 33,000 vehicles at 2,400 locations across the United States, Puerto Rico, and U.S. territories (FY 2009 Federal Real Property Profile). Buildings are comprised of visitor centers, schools, dormitories, office and maintenance buildings, comfort stations, laboratories, housing, detention centers, and warehouses. The vast majority of these buildings are geographically dispersed with a size of less than 10,000 gross square feet. Many of these assets have historical or cultural significance that supports the Department's mission. The broad strategies to achieve this goal are:

- Reducing building energy intensity
- Increasing the use of renewable energy
- Implementing on-site renewable energy generation projects
- Reducing the use of fossil fuels in both buildings and fleet.

Specific strategies and methodologies to achieve the scope 1 and 2 GHG emissions reduction goal are discussed below.

B. Agency Leads for Goal

Assistant Secretary - Policy, Management and Budget
Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
Deputy Assistant Secretary – Policy and International Affairs
Director, Office of Acquisition and Property Management
Director, Office of Environmental Policy and Compliance

C. Implementation Methods

Various intra-agency working groups, such as the Asset Management Partnership, Sustainable Buildings Working Group, the Department's Energy Conservation Committee, Fleet Managers Partnership, and Heritage Asset Partnership have been established with bureau representatives to ensure coordination within the Department while respecting each bureau's unique mission. The primary functions of these groups are to facilitate communication, review and recommend policies and procedures, share expertise, discuss best management practices explore new initiatives, and promote training. To ensure fulfillment of the Department's statutory and executive order goals, each of the Department's technical work groups are preparing objectives and target templates. These templates will be formulated into technical work group work plans and aggregated into the department-level EMS.

1. Buildings

Efficient and effective energy management is a key aspect of asset management planning. Energy conservation techniques and initiatives are met with enthusiasm as they complement the Department's overall mission of preserving and protecting the nation's natural and cultural resources.

Meeting the FY 2020 scope 1 and 2 GHG reductions goal is contingent upon meeting previously established statutory goals for reducing building energy intensity and increasing renewable electricity consumption. Specifically, reduce purchased electricity; eliminate the use of coal; switch to natural gas, where available; and, where fossil fuel generators are used to regularly supply power to the facility, convert to on-site renewable energy generation.

The Energy Policy Act of 2005 (EPAAct 2005), the Energy Independence and Security Act (EISA), EO 13423, and EO 13514 set forth aggressive energy management goals and strategies. These public laws and EOs require the annual reduction in energy intensity in goal subject buildings by 3 percent to achieve a 30 percent reduction by FY 2015 relative to FY 2003, and progressively increasing our consumption of renewable energy resources. In addition, the Department and its bureaus and offices are required to:

- Implement utility metering for electricity, natural gas, and steam in all appropriate buildings
- Design new buildings to be 30 percent more energy efficient than relevant codes

- Reduce fossil fuel generated energy consumption by 100 percent in new building designs or major renovations by the end of Q4 FY 2030.
- Design new buildings, beginning the planning process in FY 2020, to achieve net zero energy by the end of Q4 FY 2030
- Conduct energy and water evaluations in 25 percent of covered facilities annually
- Incorporate sustainable design principles in new and existing buildings
- Comply with the Department's Sustainable Building Program requirements
- Comply with the Department's Electronic Stewardship and Data Center Program requirements
- Utilize Energy Star, FEMP-designated, and other energy-efficient products when acquiring energy-consuming products
- Consolidate the Department's data centers to reduce power consumption and cooling requirements of computer equipment.

In FY 2010, purchased electricity and stationary fuel combustion made up 67 percent of the Department's total scope 1 and 2 GHG emissions. The Department is committed to achieving energy reduction goals by implementing energy efficiency and renewable energy technologies as well as best management practices. In addition, these goals contribute to the Department's efforts to reduce scope 1 and 2 GHG emissions. Conserving energy and investing in energy reduction measures makes good business sense and allows limited resources to be reinvested in the Department's facilities. Dramatic fluctuations in the cost of energy significantly impact already constrained operating budgets, providing greater incentives to conserve and seek ways to lower energy consumption. These include investments in cost-effective, energy efficient, and renewable energy technologies.

As required by EISA Section 432, the Department's bureaus and offices have been conducting energy and water evaluations in covered facilities to document building performance and identify energy and water conservation measures. Facilities with the highest consumption rates are generally prioritized to be audited first. Commissioning is conducted on buildings greater than 50,000 gross square feet and every American National Standards Institute (ANSI) accredited building project. Evaluations are accomplished by in-house expertise, direct funding, technical assistance provided by a Department of Energy ESPC, utility energy service contracts (UESC), partnerships with utility companies, or incorporated into existing facility condition assessment processes. The Department is expected to evaluate 25 percent of covered facilities annually. Identified energy and water conservation measures are incorporated in bureau maintenance management systems for prioritization. It is anticipated that the Department will have evaluated 75 percent of covered facilities by July 1, 2011.

The Department's bureaus utilize appropriated funding, alternative financing, and partnerships to implement energy conservation and on-site renewable energy measures. ESPCs and UESCs have been used on a limited basis by the Department's bureaus. This is primarily due to remote locations, small facility size, and decentralized utility bill payments. Energy service companies are generally not interested in pursuing an ESPC at facilities with less than \$1 million worth of energy efficiency improvements.

Since most of the Department's facilities are less than 10,000 gross square feet and are geographically dispersed, the ESPC threshold is difficult to achieve. Energy service companies will work with agencies to bundle facilities to meet the threshold but are only willing to receive a centralized payment for the project. With the exception of BLM, the Department's bureaus and offices have a decentralized utility bill payment process. This has been a major obstacle in expanding use of both ESPC and UESC projects.

As mentioned above, BLM's utility bills are paid from one centralized location. While the majority of their facilities are small, BLM bundled these facilities into a larger project and successfully implemented a multi-phased, multi-state ESPC. In FY 2010, BLM awarded the final phase of its multi-phased ESPC with Johnson Controls with an investment value of \$17.6 million. The expected payback period is 7 years with a guaranteed first year savings of \$371,000. This project phase will improve facilities in Alaska, Arizona, California, New Mexico, Texas, and Utah. Phase 3 will incorporate 28 engineered sites and 42 prescribed sites. ARRA funding was utilized to leverage additional energy conservation measures as well as renewable energy projects.

In FY 2010, USGS National Wildlife Health Center (NWHC), Wisconsin, participated in an ESPC with DOE. The NWHC used ARRA funding to support very specific energy conservation measures (ECMs). The seven specific ECMs that were funded by ARRA are: two lighting projects, two exhaust fan replacement projects, replacement of three furnaces and one boiler, replacement of four air handlers, and replacement of building control systems. The value of the ECMs is estimated to be approximately \$6.5 million. NWHC will also address other energy related projects and finance them through energy savings. Potential projects that might be funded with energy savings are replacement or repair of an existing hot water solar system, replacement of old chillers, air conditioning systems, waste treatment controls, and cooling towers, and installing a photovoltaic solar array on Main Building.

The Department continues to explore the feasibility of power purchase agreements and has been in discussion with the National Renewable Energy Laboratory. However, the Department does not have enhanced use leasing authority which is specific authority, to lease underutilized land and improvements to private sector developers for a term of up to 75 years.

Partnerships help leverage funding for a range of energy efficient and renewable energy technologies. These opportunities may include:

- Utility incentives, including rebates, customized services, etc.
- Demonstration projects
- Technical assistance from other federal agencies and national laboratories, such as DOE, and Environmental Protection Agency (EPA)
- University partnership projects
- Contributions by friends groups and partners
- Grants from state energy offices.

However, the Department will be challenged to meet the 30 percent energy intensity reduction goal and the 20 percent scope 1 and 2 GHG reduction goal without focused funding. DOE FEMP indicates that 20 percent of an agency's facility energy costs must be invested annually in energy improvements to meet the FY 2015 energy intensity goal. Based on past energy reporting, the Department typically spends approximately 10 percent of its facility energy costs on energy conservation measure (approximately \$11 million). Therefore, the bureaus will need to shift funding to meet the FY 2015 energy intensity reduction goal and follow-on funding through FY 2020 to sustain energy intensity reductions and achieve the scope 1 and 2 GHG reduction goal.

Training and awareness programs are vital for the Department to achieve and sustain energy efficient operations. Events such as DOE's GovEnergy, contributes greatly to educating the Department's energy managers, field personnel, and contracting officers. In addition, bureau energy managers provided information to personnel on available energy management training, and encouraged them to attend as much training as operational requirements and funding permitted. The Secretary's Youth Initiative further promotes conservation efforts and instills involvement with today's youth.

The Department has a unique opportunity to educate visitors and showcase both the positive and negative effects of climate change. As the nation's lead conservation agency, the Department showcases exhibits, research, and demonstrations of climate change adaptation and mitigation actions and renewable energy systems to the many visitors to its facilities. These displays promote individual awareness and conservation actions (e.g., recycling, turning off lights, walking, cycling, carpooling, or using mass transit to get to work), which reduce energy consumption thus reducing GHG emissions.

Examples of milestones for 2011 and 2012 include:

- By the end of Q4 FY 2011, the Department will continue its efforts to meet or exceed the energy intensity reduction goal to achieve a 30 percent reduction by the end of Q4 FY 2015. The Department will focus on reducing purchased electricity by approximately 1.8 percent annually to further reduce GHG emissions. The FY 2011 renewable energy consumption portfolio will consist of on-site renewable energy components, renewable electricity purchases from utility providers, and renewable energy certificate purchases.
- The Department will identify energy management policy gaps and begin process to update policy to incorporate the new EO 13514 requirements by the end of Q4 FY 2011.
- The National Business Center will begin the installation of occupancy sensors in the Main Interior Building offices in Wings 3 through 6 by the end of Q4 FY 2011.
- The Department will conduct energy and water evaluations in 75 percent of the covered facilities by the end of Q3 FY 2011.

- NPS will complete the installation of 285 kilowatt photovoltaic systems to replace diesel generated power on Alcatraz Island, California. Completion is scheduled for Q2 FY 2012.
- In partnership with Idaho Power and Light, USGS completed the installation of LED lighting at the Idaho Water Science Center, Idaho, that will save approximately 46 percent on lighting energy use.
- BIA will be installing multiple ground source heat pump systems at the following locations: Crownpoint Community School, New Mexico, Loneman Day School, South Dakota, Pueblo Pintado Community School, New Mexico, Rough Rock Community School, Arizona, and Circle of Life School, Minnesota. This work is expected to be completed by September 2011.
- USGS Western Fisheries Research Center plans to complete an air and water-side testing, adjusting, and balancing project on the entire HVAC system. This project will significantly increase the operational efficiency of the building, reduce water consumption, and fulfill the EISA recommissioning requirement. This project is subject to funding approval, and is expected to be completed by the end FY 2012.
- In FY 2011, NPS will complete the construction of 2 net zero energy buildings at John Day Fossil Beds and Santa Monica Mountains NRA, California. The new dormitory at Santa Monica Mountains will feature a 32 kilowatt photovoltaic system and a ground source heat pump.
- In FY 2012, FWS anticipates completing 6 energy efficiency and 13 renewable energy projects totaling \$60.5 million, funded by ARRA.

2. Fleet

The Department's fleet management program provides support to the management of over 33,000 fleet motor vehicles nationwide, including over 5,000 alternative fueled vehicles and over 1,300 hybrid vehicles. The Department established a portfolio management approach to operating the motor fleet program.

Each departmental bureau or office has implemented fleet management plans to guide their programs. They have developed strategic direction to optimize the utilization and size of its fleets by linking decisions about acquisition, leasing, replacement cycles, and disposal with strategic goals and mission needs. The Department's fleet management strategy consists of the bureaus and offices implementing and continually updating their plans based on best practices and lessons learned. The plans formulate the framework for improved fleet management. Bureau and office plans are updated annually and incorporate latest statutes and requirements for federal fleet management. Bureau and office plans are reviewed at least annually by the Department's Fleet Manager.

Section 142 of EISA required federal fleets to decrease petroleum consumption, increase alternative fuel use, and to develop a plan to do so. Federal agencies are to reduce petroleum consumption 2 percent annually through 2015 and increase

alternative fuel use 10 percent annually through 2015, both relative to a 2005 baseline. This guidance on sustainability and GHG reduction will extend the petroleum reduction and alternative fuel usage goals through FY 2020. The Department met or exceeded these goals in FY 2010. Interior is on pace to meet these requirements, and will continue to meet the requirements outlined in the SSPP. The Department has successfully achieved these requirements through:

- Reductions in Fleet size (over 10 percent since FY 2005)
- Acquiring over 1,450 more fuel-efficient vehicles through the American Reinvestment and Recovery Act (ARRA) vehicle procurement initiative
- Increasing the number of alternative fueled vehicles and hybrid-electric vehicles in the Department's fleet inventory

In the FY 2011 vehicle acquisition cycle, the Department replaced vehicles in its executive fleet with more fuel-efficient vehicles, alternative fueled vehicles, and hybrids. These vehicles will reduce dependence on petroleum and increase the fuel efficiency of the Office of the Secretary fleet. The Department is also looking for opportunities and partnerships to consolidate shuttle service operations for its shuttle in the DC metro area.

The Department is on track to continue to meet these requirements, and will continue to meet the requirements outlined in the SSPP. By the end of Q4 FY 2011, the Department will develop an acquisition strategy to place AFVs in locations where the alternative fuel is available. This acquisition strategy will also include bureau strategies for the placement and redistribution of vehicles by the end of Q4 FY 2011.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are normally collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

	Scope 1 and 2 GHG Target	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	....	FY 20
Buildings	Energy Reduction Goals (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%	....	hold
	Planned Energy Reduction (BTU/SF reduced from FY03 base year)	%	21.5 %	23.5 %	25.5%	27%	28.5 %	30%		
	Renewable Electricity Goals (Percent of electricity from renewable sources)	%	5%	5%	5%	7.5%	hold	hold		hold
	Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%	7.8%	8%	8.5%	9%				
Fleet	Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	....	30%
	Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	.....	30%
	Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61%	77%	95%	114 %	136 %	159 %	....	hold
	Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%	61%	77%	95%	114 %	136 %	159 %		
(New) Senior Executive Fleet Replaced with Low-GHG, High Efficiency Vehicles (Percent replaced from FY08 base year)	%	0%	33%	hold	hold	hold	hold	...	hold	
Total Scope 1&2 GHG Emissions (Comprehensive)	MMTCO ₂ e	0.84806 86	0.81841	0.801708	0.785006	0.7683 04	0.75160 1			0.6680 9
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 GHG Reduction Target)	MMTCO ₂ e	0.81876 88	0.802283	0.785910	0.769537	0.7531 64	0.73679 0			0.6549 25
Overall Agency Scope 1 & 2 Reduction (reduced from FY08 base year)	%	-0.01	2	4	6	8	10	...		20

F. Agency Status

1. Buildings

In FY 2010, the Department's building energy consumption was 65,060 Btu per gross square foot without the renewable energy purchase credit. This represents a total reduction in energy consumption per gross square foot of 21.5 percent relative to FY 2003, exceeding the EISA energy intensity goal of 15.

In FY 2010, the Department used 62,194 megawatt hours of renewable electricity from self-generation and through renewable electricity purchases and credits. This represents 7.8 percent of the Department's total facility electricity use and exceeds the EAct 2005 goal of 5 percent of facility electricity use. Of the 7.8 percent, 2.3 percent represents on-site renewable energy generation; 1.7 percent represents renewable electricity purchased through the utility company; and 3.8 percent represents the purchase of renewable energy certificates. The use of on-site renewable energy sources is encouraged if the development of the resource is economically, environmentally, and technically feasible.

The Department's FY 2010 per capita energy consumption was 65.9 million Btu which is a 2.5 percent reduction compared to FY 2009 based on approximately 70,000 employees. This does not include 240,000 volunteers, 480 million visitors, 42,000 elementary and secondary BIA school students, or 4,000 BIA detention center inmates who also make significant impacts to energy consumption. Efforts to promote energy and GHG emissions awareness assist in influencing behavioral changes. The Department is finalizing an updated telework policy which aligns with the requirements of the Telework Enhancement Act of 2010. In addition, the Department is taking advantage of opportunities to dispose of excess assets, and consolidate data centers and other space usage where feasible.

2. Fleet

In accordance with the preliminary guidance provided by the Department of Energy (DOE) for the development of agency plans, the Department has implemented the following guidelines to reduce the Department's GHG emissions:

Fleet Inventory Projections

By the end of Q4 FY 2011, the Department will conduct a mission analysis and identify measures to 'right-size' their fleets: having the appropriate number of vehicles relative to need and employing the most fuel-efficient vehicle for the required task. These projections also address the annual EAct 75 percent alternative fuel vehicles (AFV) acquisition requirement and EAct 2005 Section 701 waivers. This analysis will be used to make strategic decisions on size, composition, and placement of departmental vehicles in FY 2011.

The Department developed guidance to bureaus and offices to implement measures to right-size fleets and to identify the minimum number of vehicles for each location that will satisfy mission requirements. A joint working group with key energy, environmental,

and transportation personnel disseminates requirements and guidance to bureaus to increase the efficiency of the departmental fleet. The Department will continue to require that each bureau maintain and annually update its bureau-level fleet management plans. These plans continually address issues to:

- Develop and implement a vehicle justification template that will tie each vehicle to a departmental mission
- Develop a minimum vehicle baseline per bureau
- Require that bureaus develop a strategy for compliance and incorporate this strategy into their fleet management plan
- Require that each bureau continue to acquire the minimum size and type vehicle that will accomplish its mission

Compliance with this strategy, upon issuance of the revised guidance, will be reflected in the Department internal transportation management rating tool.

Over the past 10 years, the Department has exceeded the alternative fuel vehicle (AFV) acquisition requirement in accordance with the Energy Policy Act of 1992 and 2005. The Department has also reduced the number of AFV waivers by strategically acquiring and placing vehicles in locations where the fuels are available. The Department seeks methods and funding to increase alternative fuel infrastructure to increase the use of alternative fuels and decrease the number of Section 701 waivers necessary to meet mandated requirements.

Petroleum Reduction Projections

To reduce petroleum consumption the Department will continue to:

- Decrease consumption of petroleum fuels and increase use of alternative fuels
- Include guidance in the Department's Motor Vehicle Handbook that requires bureaus to acquire the most-fuel-efficient vehicle that will accomplish the mission
- Require that each vehicle includes a justification on how it best meets mission requirements
- Require that bureaus acquire the minimum size and type vehicle that will accomplish the mission
- Replace conventionally fueled vehicles with alternative fueled vehicles
- Eliminate older, less-fuel-efficient vehicles and replace them with newer, more-fuel-efficient vehicles
- Develop performance measures for vehicles and excess vehicles that do not meet these requirements
- Acquire more gasoline-electric hybrid vehicles
- Develop acquisition plans for the fleet portfolio
- Conduct on-site fleet management assessments to gather data on fleet condition, utilization, right-sizing, and mission dependency
- Conduct workshops to outline and implement bureau-level strategy.

Alternative Fuel Use Projections

The Department has implemented measures to increase the use of alternative fuels. Although the infrastructure for alternative fuels is limited, the Department has and will continue to use alternative fuels wherever possible. Specifically, the Department will implement the following strategies by the end of Q4 FY 2011 to increase alternative fuel use:

- Develop an acquisition strategy to place alternative fuel vehicles (AFV) in locations where the fuel is available
- Request additional funding to increase the infrastructure for alternative fueling stations at the Department's fueling sites
- Develop public and private partnerships to increase the availability and use of alternative fuel and fueling stations.

G. Return on Investment

Buildings: The planned ESPC project at the USGS S.O. Conte Anadromous Research Center in Turners Falls, MA was cancelled. The ESCO completed the preliminary audit and did not identify ECMs with enough of an impact to move forward.

Fleet: No known departmental fleet projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

See "Section 2:,I. Summary of Accomplishments."

2. GOAL 2: Scope 3 Greenhouse Gas Reduction and Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

Scope 3 Greenhouse Gas Reduction

A. Goal Description

The Department established a FY 2020 scope 3 GHG emissions reduction goal of 9 percent relative to FY 2008. Scope 3 emissions are from sources not owned or directly controlled by a Federal agency, but related to agency activities, services, and employee travel and commuting.

Scope 3 GHG emissions can be far reaching as they are the consequence of many departmental activities. The reduction activities represent an important opportunity to influence the behavior of employees and suppliers towards activities that reduce GHG emissions and protect the environment. The Department has approximately 70,000 employees and benefits from 242,000 volunteers at 2,400 locations across the United States, Puerto Rico, and U.S. territories. In addition, the Bureau of Indian Education provides education services to 42,000 students attending elementary, secondary, post-secondary schools, and dormitories. The Bureau of Indian Affairs also owns correction centers with an average of 4,000 detention center occupants.

Per the FY 2008 GHG baseline and FY 2010 GHG inventory, the Department's largest sources of scope 3 emissions were:

- Federal employee travel and commuting
- Contracted waste disposal
- Transmission and distribution losses from purchased electricity

The broad strategies to achieve scope 3 GHG emissions reductions include:

- Reduce purchased electricity consumption to minimize transmission and distribution losses
- Implementing on-site renewable energy projects
- Increasing diversion of nonhazardous solid waste
- Implementing lower-carbon commuting and travel strategies for employees in coordination with the GSA including telework.

B. Agency Lead for Goal

Assistant Secretary - Policy, Management and Budget
Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
Deputy Assistant Secretary – Policy and International Affairs
Deputy Assistant Secretary – Technology, Information and Business Services
Director, Office of Acquisition and Property Management
Director, Office of Environmental Policy and Compliance
Director, Office of Financial Management
Chief Information Officer

C. Implementation Methods

Scope 3 GHG emissions are the result of a broad range of activity areas. EO 13514 seeks to establish federal leadership with the development of calculation methodologies and reduction strategies. The calculation of scope 3 GHG emissions is a challenge due to the limited availability of existing emissions data.

In 2010 the Department completed the scope 3 FY 2008 baseline and FY 2010 comprehensive GHG emissions inventory. The inventory was completed by collecting data on energy consumption, obtaining business travel data from the Travel Management System (TMS) provider, conducting a department-wide commuter survey, and obtaining data on contracted waste disposal. The Department will work under the premise of continual improvement for data collection and reporting, as well as implementation of reduction strategies.

To ensure fulfillment of the Department's statutory and executive order goals, each of the Council's technical work groups are preparing objectives and target templates. These templates will be formulated into technical work group work plans and aggregated into the department-level EMS.

Transmission and distribution losses from purchased electricity are directly linked to energy consumption. As purchased electricity consumption decreases so will the scope 3 GHG emissions associated with transmission and distribution losses. The Department will continue to reduce building energy intensity and incorporate on-site renewable energy generation projects to make positive strides in reducing scope 1, 2, and 3 GHG emissions.

Milestones for reducing purchased energy consumption and therefore transmission and distribution losses include: By the end of Q4 FY 2011, the Department will continue its efforts to meet or exceed the energy intensity reduction goal to achieve a 30 percent reduction by the end of Q4 FY 2015. The Department will focus on reducing purchased electricity by approximately 1.8 percent annually to further reduce GHG emissions. The FY 2011 renewable energy consumption portfolio will consist of on-site renewable energy components, renewable electricity purchases from utility providers, and renewable energy certificate purchases. Additionally, in FY 2011 the Scope 3 and Fugitive Emissions Work Group will review the applicable recommendations in the Inventory Management Plan (IMP) and submit to the Council those that are recommended for implementation in FY 2012.

Reducing air travel in the Department presents a distinct challenge, but also a great opportunity. The Department is a diverse, decentralized federal agency with operations and responsibilities throughout the United States, Puerto Rico and U.S. Territories, and provides both temporary duty travel and permanent change of station relocation travel. Managers may oversee operations and staff in various and geographically dispersed locations making business air travel to meet mission needs inevitable. The Department has actively participated with the GSA to develop, collect, and report employee business air travel through the GSA Travel Management Information System. This information is collected from the contracted TMS provider, as employees make business air travel reservations through the Department's E-Gov Travel System, GovTrip, or directly with the TMS, SATO. The Department does not have a method to collect information when employees make reservations outside this process; (i.e., direct reservations with airlines or the use of travel broker sites such as Travelocity).

GSA's Travel Management Information System is still developing business ground travel data collection and reporting. Ground travel includes rental vehicles, rail travel, bus travel, ship travel, and personal vehicle travel. Manual collection of this data is resource intensive and will not be able to be accomplished for scope 3 GHG reduction target development.

Milestones for addressing business travel emissions reductions in FY 2011 include establishing a Scope 3 and Fugitive Emissions Technical Workgroup ad hoc Business Travel Committee to review current business travel policies and alternatives to travel for conducting business, work with GSA and TMS to improve data availability and granularity (bureau level data needed), and begin formulating reduction strategies for

approval by the Council. In FY 2012 the Department plans to begin implementing the ad hoc travel committee's approved recommendations. Strategies may include:

- Communicating the requirement to use the Department's travel management provider when making all business travel arrangements
- Increasing the use of technology in lieu of face-to-face meetings, where possible, such as conference calls, videoconferences, and webinars
- Limiting air travel to critical mission needs
- Promoting use of lower-carbon travel alternatives for TDY travel
- Identifying and using green rental car vehicles when available
- Identifying and using green hotels

Additionally, in FY 2011 the Scope 3 and Fugitive Emissions Work Group will review the applicable recommendations in the IMP and submit to the Council those that are recommended for implementation in FY 2012.

Employee commuter travel has far-reaching impacts. It will require changes in behavior. The Department employees work in diverse locations from major metropolitan areas and rural sites, to extremely remote locations where mass transit options are often nonexistent. Estimations of commuter data were utilized to accomplish the scope 3 GHG target development. In 2010 the Department conducted a Department wide commuter survey to formulate the FY 2008 and 2010 GHG comprehensive inventories.

Milestones for addressing employee commuter travel include analyzing the final Commuting Emissions Report for opportunities, recommendations, and policy changes for reductions in FY 2011. On May 16, 2011, the Department issued Personnel Bulletin 11-01 establishing updated department-wide guidance for telework. The Personnel Bulletin includes a detailed Telework Handbook that sets procedures and guidance for bureaus and offices to develop their own telework programs. The Personnel Bulletin is a temporary issuance pending final approval of the Departmental Manual (DM) chapter, which will formally establish department-wide policy. The policy and procedure set forth in the Personnel Bulletin and Telework Handbook are based on public laws and regulations issued by the Office of Personnel Management, GSA and OMB.

In FY 2012 the Department will begin implementing recommended actions or strategies such as promoting use of mass transit, carpooling, teleworking, and other lower-carbon commuting alternatives in FY 2012. Additionally, in FY 2011 the Scope 3 and Fugitive Emissions Work Group will review the applicable recommendations in the IMP and submit to the Council those that are recommended for implementation in FY 2012.

Contracted (off-site) waste disposal includes both contracted solid waste and contracted wastewater treatment. Information on recycled or diverted waste was collected and is being analyzed. Data regarding off-site solid waste disposal can be determined from this information. Scope 3 GHG emissions from contracted wastewater treatment are generally determined by the number of people employed.

Milestones for addressing contracted (off-site) waste disposal scope 3 emissions reductions in FY 2011 include reviewing current practices and formulating recommendations to improve the Department’s waste reduction, reuse, and recycling and programs. Evaluating other agencies successful implementation methods is also planned. In FY 2012 the Department will begin implementing the approved strategies. Additionally, in FY 2011 the Scope 3 and Fugitive Emissions Work Group will review the applicable recommendations in the IMP and submit to the Council those that are recommended for implementation in FY 2012.

Training and awareness is required for the Department to achieve and sustain scope 3 GHG emissions reduction. DOE’s FEMP GovEnergy conference, the Environmental Protection Agency’s (EPA) WaterSense Program, and various webinar training sessions greatly contribute to educating the Department’s subject matter experts, and field personnel.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not they are adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table:

SCOPE 3 GHG TARGET	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Total Scope 3 GHG Emissions (Comprehensive)	MMTCO _{2e}	0.390491	0.358155	0.354903	0.351650	0.348397	0.345145	...	0.328881
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MMTCO _{2e}	0.390491	0.358155	0.354903	0.351650	0.348397	0.345145	...	0.328881

Overall Agency Scope 3 Reduction (reduced from FY08 base year)	%	-8.04	0.9	1.8	2.7	3.6	4.5	...	9
Other, as defined by agency	%	-	-	-	-	-	-	...	-

F. Agency Status:

In FY 2010 the Department established a FY 2020 scope 3 GHG emissions reduction goal of 9.0 percent relative to FY 2008. Previously established statutory and EO goals, such as reduction in building energy intensity, implementation of on-site renewable energy systems, and increasing diversion of nonhazardous solid waste, will greatly contribute to achieving the scope 3 reduction goal.

In FY 2010 the Department conducted a comprehensive scope 3 GHG emissions inventory and baseline using a variety of methods, including:

- The Department’s energy consumption rate was used to determine transmission and distribution losses
- To determine business travel emissions the Department worked with GSA and our TMS to derive a departmental emissions factor
- The Department conducted a commuter survey to determine employee commuting GHG emissions
- To determine contracted waste disposal emissions
 - A Department developed tool was used for municipal solid waste
 - The number of full time equivalent employees was used to determine the contracted wastewater emissions data.

The data obtained by the various methods above was entered into the FEMP tool and submitted to CEQ and OMB on time.

The Department’s FY 2008 scope 3 emissions baseline is 361,408 (MT CO2e) and the inventory in FY 2010 was 390,491 (MT CO2e). This represents an approximate 8 percent increase in scope 3 GHG emissions. The increase is primarily due to employee business travel (ground and air travel) and contracted municipal solid waste. The three largest contributors to the FY 2010 emissions inventory were employee commuting (57 percent), contracted municipal solid waste disposal (17 percent), and employee business air travel (13 percent).

Possible approaches to reduce our scope 3 GHG emissions include implementing a telecommuting program, increasing waste prevention, recycling and reuse programs, and decreasing business travel. To reach our 9 percent reduction goal in 2020, the Department needs to reduce scope 3 GHG emissions by approximately 1 percent a year.

Initiatives underway to achieve scope 3 agency targets include carefully evaluating the data and current practices to determine reduction strategies. Unlike the energy and fleet programs that have had specific reduction requirements for years, many of the scope 3

emissions contributors are being evaluated for reduction strategies for the first time. Additionally, the various methods used to collect the data need to be evaluated and fine tuned to give the Department bureau level data so each bureau can evaluate their data and formulate reduction strategies based on the Department's overall goals.

Initiatives planned to achieve the Department's scope 3 reduction target include developing, recommending, and tracking, in EMS, specific action items the Department and bureaus can implement in order to reach a 9 percent reduction in scope 3 GHG emissions by 2020. Other actions planned include working with the Council on GHG reduction training/awareness and outreach programs, partnering with Human Resources to help implement the Department's telework policy which aligns with the requirements of the Telework Enhancement Act of 2010, working with GSA and TMS to provide business travel data granularity (bureau specific), working with EPA on effective methods to increase waste diversion, and working with the commuter survey contractor to provide bureau specific data.

G. Return on Investment

No known scope 3 emission reduction projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

The Department completed a commuting survey of all full time employees, which had a 50 percent response rate. The survey methodology included detailed questions about employee commuting habits. The resulting data sets yielded robust opportunities to analyze departmental employee commuting habits and potential emission reduction approaches.

See also "Section 2:,I. Summary of Accomplishments."

Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

A. Goal Description

The Department established a FY 2020 scope 1 and 2 GHG emissions reduction goal of 20 percent and a scope 3 GHG emissions reduction goal of 9.0 percent, both relative to FY 2008. EO 13514 requires agencies to establish FY 2008 and FY 2010 comprehensive scope 1, 2, and 3 GHG emissions inventories by January 31, 2011, and to update and report inventories annually thereafter.

B. Agency Leads for Goal

Assistant Secretary - Policy, Management and Budget
Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
Deputy Assistant Secretary – Policy and International Affairs
Director, Office of Acquisition and Property Management
Director, Office of Environmental Policy and Compliance
Director, Office of Financial Management

C. Implementation Methods

The Department utilized the Federal Greenhouse Gas Accounting and Reporting Guidance established by CEQ and FEMP to determine the FY 2008 GHG emissions baseline and FY 2010 comprehensive GHG inventory. The Department identified the data required for GHG emissions, established organizational responsibilities and processes for data collection, and utilized existing data reporting to inventory initial GHG emissions. The Department used a variety of data tools to capture GHG emissions data from a variety of sources. The Department will strive to continue to improve data collection, reporting, and quality.

Many data elements, such as fugitive and fluorinated gas emissions, employee commuter emissions, and emissions from leased facilities, were a challenge to capture as they are not currently tracked or reported. Many greening responsibilities are designated as collateral duty functions of staff already stretched to meet critical mission needs. Additional data collection and reporting exacerbated this personnel issue. In addition, the submissions of required reports (FAST, Annual Energy Report, Scorecards, scope 1, 2, and 3 GHG inventories) converge at the end of the calendar year and are often prepared by the same individuals. While much of this information populated the GHG inventory, emissions categories not captured by existing tools required special training, attention, and follow-up.

Several emerging implementation issues were identified for this goal and will be vetted by the Council to develop recommended courses of action. One of the issues is the question of whether or not we are using the best tools to collect necessary data. Issues will be initially discussed at the technical work group level and subsequently briefed to the Implementation Committee for endorsement and review of policy, proposed phased timeline, funding, or other department-level considerations. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management level staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Agency Status

- The Department completed a top-down comprehensive GHG inventory by the January 31 2011 deadline, using the Department's annual energy and fleet reports and other data as appropriate.
- With assistance from the Pacific Northwest Laboratory we also developed a Greenhouse Gas IMP to submit with the comprehensive GHG inventory.
- The Department and bureaus will assess the feasibility of the GSA Carbon Footprint Tool and other data collection tools for future use.

The results of the Department's GHG inventory for scope 1 & 2 (including renewable energy use) is a FY 2008 emissions baseline of 818,656 (MT CO₂e) and a FY 2010 inventory of 818,768 (MT CO₂e). This represents a less than 1 percent increase from FY 2008 and FY 2010. The three largest contributors to the FY 2010 inventory were purchased electricity (52 percent), fleet vehicle emissions (18 percent), and stationary fuel combustion (15 percent).

The results of the Department's GHG inventory for scope 3 is a FY 2008 emissions baseline of 361,408 (MT CO₂e) and a FY 2010 inventory of 390,491 (MT CO₂e). This represents an approximate 8 percent increase in scope 3 GHG emissions. The increase is primarily due to employee business travel (ground and air travel) and contracted municipal solid waste. The three largest contributors to the FY 2010 emissions inventory were employee commuting (57 percent), contracted municipal solid waste disposal (17 percent), and employee business air travel (13 percent).

G. Return on Investment

Because fugitive emissions was one of the Department's smallest emission sources and the most time intensive data collection effort, the Department will evaluate if collecting fugitive emissions data is worth the return on investment for the FY 2011 GHG inventory.

H. Highlights

See "Section 2;.I. Summary of Accomplishments."

3. GOAL 3: High-Performance Sustainable Design / Green Buildings and Regional and Local Planning

High-Performance Sustainable Design / Green Buildings

A. Goal Description

The Department's targets are:

- Beginning by the end of Q4 FY 2020, all new federal buildings are designed to achieve zero-net energy by the end of FY 2030
- All new construction, major renovation or repair and alteration of federal buildings complies with “Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings” (GPs)
- At least 15 percent of agency’s existing buildings and building leases will meet the GPs by FY 2015 (5,000 gsf threshold for existing buildings and building leases)
- Demonstrate annual progress toward 100 percent conformance with GPs for entire building inventory
- Demonstrate use of cost-effective, innovative building strategies to minimize energy, water, and materials consumption
- Manage existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets’ deferred maintenance costs
- Optimize performance of the agency’s real property portfolio – examine opportunities to decrease environmental impact through consolidation, reuse, and disposal of existing assets prior to adding new assets
- Ensure use of best practices and technology in rehabilitation of historic Federal properties
- Participating in regional transportation planning and recognizing existing community transportation infrastructure
- Aligning Federal policies to increase the effectiveness of local planning for energy choices such as locally generated renewable energy
- Ensuring that planning for new Federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, and accessible to public transit, and emphasizes existing central cities and, in rural communities, existing or planned town centers
- Identifying and analyzing impacts from energy usage and alternative energy sources in all Environmental Impact Statements and Environmental Assessments for proposals for new or expanded Federal facilities under the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.)
- Coordinating with regional programs for Federal, State, tribal, and local ecosystem, watershed, and environmental management

B. Agency Leads for Goal

Assistant Secretary - Policy, Management and Budget
 Deputy Assistant Secretary – Policy and International Affairs
 Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
 Director, Office of Environmental Policy and Compliance
 Director, Office of Acquisition and Property Management
 Director, Office of Budget

C. Implementation Methods

The Department's sustainable building (SB) program is led by OEPC. In leading the SB program, OEPC closely coordinates with PAM, which leads the Department's Asset Management Program, the Facilities Energy Management Program, and the Leasing Program. OEPC also closely coordinates with POB.

The Department's policy development and implementation is managed by the Department's Sustainable Building Work Group (SBWG), which is chaired by OEPC, co-chaired by a bureau representative, and has active representatives from each bureau, PAM, and POB. The SBWG representatives come from a variety of disciplines: architecture, engineering, budget, new construction project management, facility operation and maintenance, cultural resources, leasing, asset management, including disposal, energy management, and sustainable practices. As such, the Department's SB program and SB policy is closely interwoven with the Department's facilities energy-management program, asset management program, leasing program, GHG emission reduction program, budget formulation, and budget execution.

All methods to implement the SB program are in the Department's Sustainable Building Implementation Plan (SB Plan), including use of the Department's Sustainable Building Assessment and Compliance Tool (SB Tool). The SB Tool serves several functions for project managers of new construction, major renovation, and operations and maintenance projects. It provides a checklist of the GPs, guidance to project managers for documenting compliance, and guidance to implement the GPs in historic buildings. It is also used to assess compliance with the GPs at existing buildings. The results of existing building assessments are reported in the Federal Real Property Profile (FRPP) and in the annual SB program evaluation.

Progress on implementation of the SB Plan is measured by a comprehensive SB program evaluation. The SB program evaluation, conducted at the end of the calendar year, provides data for reporting departmental progress for the OMB scorecard submission. The bureau/office SB program leads provide data on progress made toward SB goals, implementation gaps, challenges for resolution, and opportunities for mutually beneficial program development as well as opportunities for going beyond compliance.

Detailed information about implementation methods, milestones, and strategies are available in the SB Plan issued in June 2008. The Department has a working draft of an updated SB Plan, which bureaus are using to manage their SB programs. The final updated SB Plan, or at a minimum an interim draft, will be issued after the Department and OMB discuss opportunities to address the Department's SB program challenges. A copy of the SB Plan, its appendices, and the SB Tool are available on the web at: www.doi.gov/greening/buildings.

The Department's policies require that all indirect leases, which are included in the Department's FRPP data, meet the same GSA leasing standards as GSA direct leases.

All GSA direct leases are in compliance with the SB program since GSA has integrated compliance with the EO 13514 sustainable building requirements.

Impact of the American Reinvestment and Recovery Act (ARRA)

The Department was successful in integrating the SB Tool into the Department's ARRA purchasing guidance. This success enabled the Department to ensure applicable funding from the \$3 billion which helped the Department to make progress toward the 15 percent goal. Thus, some bureaus will have a spike in compliance with the GPs in FY 2011 but may taper off when ARRA funding is no longer available. Conversely, bureaus that received respectively little or no ARRA funding will be slower to make progress. Agency-owned buildings will slowly come into compliance in later fiscal years as needed improvements are identified, budgeted and implemented and sustainable building practices are integrated into planned maintenance, renovations and new building construction.

Asset Management and Capital Planning Framework

The Department's Asset Management Program provides the overall vision, structure, and processes for implementing Executive Order 13327, Federal Real Property Council initiatives, and efforts involving the appropriate stewardship of over 47,000 buildings. PAM and POB provide leadership and execution support for the program at the departmental-level. The Asset Management Team (AMT), an interbureau, executive level committee comprised of senior real property officers (SRPO), establishes the strategic vision for asset management and ensures that activities support and comply with Department and bureau strategic plans and objectives. The AMT also provides executive direction for the Capital Planning and Investment Control (CPIC) program; a multiphase effort which supplements OMB's Capital Programming Guide and is documented in the Department's CPIC Guide. The CPIC program identifies the processes, activities, and outputs necessary to ensure that the Department's investments are well conceived, cost-effective, and support departmental and bureau missions. Many of the committee charters, guidance documents, and plans discussed above are available at www.doi.gov/pam/.

The Department implements many elements of the SB program in each phase of the CPIC program.

1. Pre-Select Phase

The Pre-Select phase provides a process to assess a capital investment's support of bureau and departmental strategic and mission needs. The Facilities Deferred Maintenance and Capital Improvements Guidance (Attachment G) is the departmental budget formulation guidance that establishes annual priorities and requirements for the bureaus' five-year Deferred Maintenance and Capital Improvements (DMCI) program. With respect to the SB program, Attachment G accomplishes two objectives: first, it requires that all building deferred maintenance projects comply with the GPs that are

applicable to the scope of the project. Secondly, it clearly directs how projects are prioritized based upon department-wide criteria. Under these criteria, capital improvement projects whose primary intent is to improve the sustainable aspects of Federal buildings are prioritized second only to critical life, health, and safety improvement projects.

2. Select Phase

The Select phase utilizes a structured review and evaluation process that ensures selected investments fully support the mission and strategies. Investments in the Select phase mature from a concept into a selected alternative based upon life-cycle cost effective strategies, including an analysis of which sustainable design concepts are appropriate. Bureau Investment Review Boards (IRB), which are interdisciplinary, bureau-level executive committees, and the AMT assess and approve certain projects that enter this phase, ensuring that the project scope includes appropriate sustainability measures. Construction Exhibit 300, when applicable, also includes discussion on which sustainable design concepts are planned and whether the project will comply with the GPs. Lastly, performance measures are identified for ensuring that the project meets the performance goals identified through the business plan.

3. Control Phase

The Control phase ensures that capital investments are conducted in a disciplined, well-managed, and consistent manner. Risk management plans are utilized to ensure investments are delivered within scope, on time, and within budget. Risk mitigation efforts are implemented to reduce or eliminate risk to critical project elements. The current CPIC guide includes sustainable design concerns. The next update to the CPIC guide will include use of the SB Tool. The Control phase also allows bureau IRBs and AMT to engage in oversight of certain projects that exceed variance thresholds and provide approval on corrective actions to realign project performance.

4. Evaluate Phase

The Evaluate phase compares actual to expected results after an investment is constructed to assess the impact on mission performance. This phase focuses on determining whether the investment met the performance criteria established in the Select phase. For the SB program, this includes an assessment of the building in accordance with the SB Tool. At the end of the Evaluate phase, which could last up to a year after construction completion and occupancy, the investment is evaluated against the design approach by bureau staff, compliance with the GPs is reviewed, and asset records are updated in the FRPP.

5. Management-In-Use Phase

The Management-In-Use phase accounts for the majority of the effort and resource needs across an investment's life cycle. This phase provides the means to ensure

continued effectiveness of an investment in supporting mission requirements, evaluates ongoing operations and maintenance requirements, and considers potential disposal and/or replacement of an investment.

With respect to the SB program, this phase includes areas such as advanced metering of utilities to effectively monitor use, recommissioning building systems where necessary, and appropriate use of Energy Star equipment and green/biobased products in daily operation.

The Management-In-Use phase encompasses several other functions that either directly or indirectly support the SB program. A few examples of these functions are, or will be:

- Building assessments using the SB Tool
- Comprehensive condition assessments for identifying maintenance / repair needs and inefficiencies
- Energy and Water Audits and Evaluations
- Environmental Management Systems
- Health and Safety Inspections
- Environmental Compliance Audits, and
- Five-year Space Plans

The Department aims to right-size the real property asset portfolio and minimize associated operational costs. This includes consolidating agency activities when feasible, improving space utilization rates, disposing of excess buildings, eliminating leases that are not cost effective, and adaptive reuse of existing historic buildings. Through its Real Property Cost Savings and Innovation Plan, which implements the requirements of the "[Presidential Memorandum - Disposing of Unneeded Federal Real Estate](#)", the Department is investigating and implementing positive actions to achieve savings and cost avoidance in asset management. Ultimately these actions will drive the Department to a more efficient, sustainable future.

Additionally, copies of the Asset Management Plan and the CPIC Guide are available on the web at: www.doi.gov/pam/assetmanage.html.

Regional and Local Planning

Methods and practices necessary to achieve the goals of the SSPP are or will be integrated into agency master planning documents. For example, the sustainable building requirements are fully integrated into departmental master planning documents for building construction, operations and maintenance. The Council also has plans to update the DM (departmental guidance) to integrate the goals of the SSPP into all applicable sections. Additionally the department-level EMS objectives, targets, and milestones outline actions to implement, monitor and report the goals of the SSPP.

The Department ensures that planning for new federal facilities or new leases includes consideration of Executive Order 13006, “Locating Federal Facilities on Historic Properties in Our Nation’s Central Cities.” Implementation of this EO allows the Department to take advantage of inherent energy saving features and embodied energy of existing historic buildings.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, cultural resources specialists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

SUSTAINABLE HIGH PERFORMANCE BUILDINGS (Buildings Meeting Guiding Principles)	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Owned Buildings	%	1.55%	3.27%	4.43%	5.07%	6.22%	14.98%
FRPP-reported Leased Buildings	%	0%	0%	0%	0%	0%	0.02%
Total Buildings	%	1.55%	3.27%	4.43%	5.07%	6.22%	15%
Other as defined by agency	%	N/A	N/A	N/A	N/A	N/A	N/A
REGIONAL and LOCAL PLANNING							
Other as defined by agency	%	N/A	N/A	N/A	N/A	N/A	N/A

F. Agency Status

The Department has an established history of championing sustainable building practices for departmental facilities starting with the 1993 NPS *Guiding Principles of Sustainable Design*. Also, part of the Department’s mission is to provide recreation opportunities, which includes educational programs. Many sustainably designed visitor centers serve important education and outreach roles for the visiting public.

The Department was also an original signatory to the 2006 *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding* and completed

its first SB plan in FY 2007. After signature of EO 13423, the Department updated the SB Plan, signed in June 2008, which serves as agency policy as well as an action plan for implementation.

Currently, per the FRPP, the Department owns and operates over 47,000 buildings. The value of these assets is measured in billions of dollars. Many are considered priceless for their historical significance.

For buildings above 5,000 gross square feet (gsf), the Department has a total inventory of 3,878 buildings with 60,212,596 gsf. Thus the Department's 15 percent targets correspond to 582 buildings and 9,031,890 gsf.

The SB program assessment conducted in December 2009, revealed:

- By square footage, the Department has 1.5 percent gsf that meets the GPs. Using current budget projections, the Department expects to have 8.2 percent gsf meet the GPs by the end of Q4 CY 2015, 6.8 percent short of the 15 percent target.
- By number, the Department has approximately 1 percent of buildings that meet the GPs. Using current budget projections, the Department expects to have almost 4 percent of total buildings meeting the standards by the end of Q4 CY 2015, 11 percent short of the 15 percent target, by the end of Q4 CY 2015.

The Department is engaging with OMB to find a SB program solution to meet the 15 percent goal by 2015. The Department and OMB had a kick-off meeting in April 2011. We agreed to work cooperatively to find a solution consistent with the intent of EO 13514 that is appropriate for the very large and unique inventory held by the Department.

The Department has three main challenges in meeting the 15 percent goal.

The first challenge is: the GPs best apply to large facilities designed for human occupancy with conditioned spaces. The Department's building inventory includes many facilities that are not physically capable of meeting all of the GPs. For example:

- "Rosie the Riveter," a historic shipyard (visit http://www.nps.gov/rori/upload/drivingtour-for_web_05-2009%20SMALL.pdf for more info).
- Historic buildings also may not be capable of meeting all of the GPs without harm to their historic integrity.

The second challenge is: the Department's new construction rate is low relative to the size of our inventory. The Department does not build many new large buildings. Departmental sustainable building policy states that all building construction projects, including minor repairs, must help bring the building into compliance with the GPs within the scope of the project. It also states that all new building construction projects must comply with the GPs. However, although these projects help green the "numerator," our

“denominator” of total building stock remains so large that the positive impact of new construction and renovation is quite small.

The third challenge is: the Department’s backlog of health and safety projects and other mission critical projects. The Department prioritizes the maintenance backlog over multiple planning years (i.e., bureau/office five-year capital plans). While the SB program is a high priority for the Department, the bulk of projects whose primary intent is to bring a building into compliance with sustainability requirements are lower on the priority list and may not be addressed for years. The Department requires that all deferred maintenance and capital improvement projects comply with the GPs as applicable within the scope of the project. Even so, buildings that are operating well and will not require substantial maintenance or capital improvements before 2015 will make progress toward meeting the GPs, but will not have additional funding to undergo the major work required to bring the building into full compliance with the GPs.

The Department has not addressed the target to begin designing all new federal buildings by the end of Q4 FY 2020 to achieve zero net energy by the end of Q4 FY 2030. This requirement will be addressed when DOE Federal Energy Management Program provides regulation on this requirement and/or EO 13514 implementation guidance for this requirement is available.

The Department issued a new personnel bulletin and is finalizing a DM chapter on the new teleworking law, the Telework Enhancement Act of 2010. The Department plans to expand teleworking opportunities for all DOI employees as appropriate, noting that there will be some teleworking challenges for many departmental employees that are in operational jobs that require a physical presence at work to complete tasks. This is intended to reduce the Department’s scope 3 emissions from employee commuting as well as benefit the sustainable buildings, energy, water, and asset management programs by reducing the number of employees working at on-site locations.

Regional and Local Planning

The Department currently complies with all NEPA requirements and CEQ regulations. This ensures that the Department is participating in regional and local planning. The Department’s NEPA regulations can be found at 43 CFR, Part 46. NEPA compliance and implementation policy and guidance have been prepared for bureaus and offices via DM chapters and the environmental memoranda series. Additionally, the Department complies with the departmental Sustainable Buildings Implementation Plan that mandates use of the GPs. This ensures that siting for new construction projects consider regional and local planning efforts.

The Department participates in regional transportation planning (recognition and use of existing community transportation infrastructure) by reviewing and providing input and comments (as well as participating on regional transportation planning as appropriate) on federally funded transportation projects, proposals, and environmental documents.

The Department also participates in the transportation subsidy program. DM Chapter 4, and various environmental statement memoranda (ESMs) issued by OEPC provide specific policy guidance to bureaus and offices on transportation projects from federal agencies. In addition, pursuant to Section 4(f) of the Department of Transportation Act, the Secretary of Transportation is required to seek concurrence from the Department requiring use of publicly owned land of a public park, recreation area, wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.

NEPA review and analyses include the evaluation of impacts to the environment and natural resources under the jurisdiction of the Department, including the physical and human environment, from proposed actions by Federal agencies, and as such examines impacts associated with energy use. However, under current policy and guidance, NEPA evaluation of impacts associated with energy usage are more generic in nature and do not specifically evaluate use of alternative energy sources except on a case-by-case basis. OEPC in cooperation with the departmental bureaus and offices plans to develop an ESM that will provide specific guidance to bureaus and offices on analyzing and identifying impacts associated with energy use and alternative energy sources in environmental documents prepared pursuant to NEPA. The ESM will also incorporate policy guidance to increase effectiveness of local energy planning as a part of the ongoing NEPA process.

Pursuant to the Department's NEPA regulation (40 CFR Part 46), 516 DM Chapters 1-15, and bureau's NEPA handbooks, departmental offices and bureaus coordinate and consult with federal, state, tribal, and local entities regarding impacts to environment and natural resources, including impacts to species, habitats, ecosystems, watersheds and other environmental management matters associated with proposed new or expanded Federal facilities. Such consultation and coordination is specifically mandated in the Department's NEPA regulation and various policy guidance (DM procedures, ESMs, environmental compliance memoranda (ECM), and environmental review memoranda (ERM) issued by OEPC) as a part of ongoing compliance with NEPA and its implementing procedures issued by CEQ.

The Department also participates in other regional and local planning efforts including the following initiatives: Chesapeake Bay; Ocean, Coasts and Great Lakes; Everglades Restoration; and California Bay Delta.

Chesapeake Bay : In May 2009, the President issued Executive Order (EO) 13508 for Chesapeake Bay Protection and Restoration. For the first time since the creation of the Chesapeake Bay Program in 1983, the full weight of the Federal Government will be used to address the challenges facing the Chesapeake Bay. The EO directs the Department, represented by NPS, USFWS, and USGS, to expand its efforts and increase leadership to restore the Bay and its watershed. A Federal Leadership Committee was established to ensure coordination of Federal activities and consult with states and stakeholders to align restoration efforts. (see <http://pubs.usgs.gov/fs/2010/3081/pdf/fs2010-3081.pdf>).

Ocean, Our Coasts, and the Great Lakes: In July 2010, the President, in response to the Deepwater Horizon oil spill in the Gulf of Mexico, issued *Executive Order 13547 – Stewardship of the Ocean, Our Coasts, and the Great Lakes*. This order directs executive agencies to implement recommendations under the guidance of a National Ocean Council. The Department established a Senior Ocean Policy Team to coordinate with the National Ocean Council and its subordinate committees and facilitate implementation of EO 13547. For more information, see: http://elips.doi.gov/elips/DM_word/3890.doc.

Florida Everglades: Water quality throughout south Florida Everglades has deteriorated over the past 50 years. More than one half of the wetlands that act as natural filters and retention areas are gone. Some untreated urban and agricultural storm water is sent directly to natural areas and estuaries. The Department, through NPS, FWS, USGS, and BIA, is a key player in restoring this ecosystem. The 2011 operating plan provides \$70.9 million, an increase of \$2.1 million over the 2010 enacted level for restoration of the Everglades. This ecological restoration project will improve the quantity, quality, timing, and distribution of fresh water to the Everglades National Park.

California Bay-Delta: On December 22, 2009, the Administration announced a new Interim Federal Action Plan for the California Bay-Delta. The plan noted that the Bay-Delta is in crisis and further described the current status as follows: "... the ecosystem has reached a point of collapse...." The Department, through Reclamation, FWS, and USGS, has a key role in the Interim Federal Action Plan. In 2011, the Department requested funds for studies, projects and other efforts directly in the Bay-Delta. The request will fund ecosystems, habitat and anadromous restoration efforts, the development of fish screens and fish ladders, efforts to eradicate or mitigate invasive species, water acquisition, increases water recycling and reuse programs, various water quality and quantity studies and assessments, endangered species programs, land acquisition, and other efforts.

G. Return on Investment

The Department's small (between 10,000 gsf and 5,000 gsf), remote, and/or unique buildings do not yield a great return on investment for the taxpayer compared to the relatively low cost of greening large, urban buildings designed for human occupancy. This is true whether the return on investment is calculated by utility savings, GHG reduction, or social benefit. An exception for return on social benefit could be a visitors center that can serve an educational function.

H. Highlights

See "Section 2;.I. Summary of Accomplishments."

4. GOAL 4: Water Use Efficiency and Management

A. Goal Description

EO 13514 established water consumption reduction goals for potable and industrial, landscaping, and agricultural water use. Specifically:

- Reduce potable water consumption intensity, measured in gallons per gross square foot, by 2 percent annually, relative to FY 2007, so that a 26 percent reduction is achieved by the end of FY 2020
- Reduce industrial, landscaping, and agricultural water consumption by 2 percent annually or 20 percent, relative to FY 2010 baseline, by the end of FY 2020
- Promote and implement water reuse strategies
- Achieve objectives established by EPA Stormwater Management Guidance

Specific strategies and methodologies to achieve the water use efficiency goal are discussed below.

B. Agency Leads for Goal

Assistant Secretary – Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Water and Science

Director, Office of Acquisition and Property Management

C. Implementation Methods

On February 22, 2010, Secretary Salazar signed an SO establishing a new water sustainability strategy for the United States called WaterSMART – Sustain or Manage America’s Resources for Tomorrow. Through this SO, the Department will pursue a sustainable water supply for the nation by establishing a framework to provide federal leadership and assistance on the efficient use of water, to identify adaptive measures needed to address climate change and future demands, to integrate water and energy policies to support the sustainable use of all natural resources, and to coordinate the water conservation activities of the Department’s various bureaus and offices. This order will develop a water footprint reduction program for facilities and water-consuming operations within the Department; will provide input and information on water conservation methods and technology to bureaus and offices; and work together with the SSO in order to achieve the Department’s water consumption goal set forth in Executive Order 13514. This order fully supports EO 13514 policy to conserve and protect water resources through efficiency and management.

The Department’s bureaus utilize DOE FEMP Water Conservation Best Management Practices in new construction and building renovations where applicable, to meet potable water conservation goals. Specifically, bureaus design and install low-flow or ultra-low-flow plumbing fixtures in all new facilities. Landscaping design and construction has emphasized the use of native plant species minimization or elimination of artificial irrigation, and maximizing efficiency of necessary irrigation through the use of drip systems, precipitation detection systems, and optimal timing. Public information

related to drought and water conservation is available at many facilities and is recognized as a Best Management Practice in the FEMP guidance. In addition, the Department's Sustainable Building Assessment and Compliance Tool provides detailed information on meeting GPs requirements for water quality and performance.

The Department is committed to meeting the FY 2020 water reduction goals. However, these out-year goals will be challenging to meet. Energy and water evaluations at covered facilities required by EISA will assist in the identification of high-priority water conservation measures for potable water, which may be implemented by appropriated funding, alternative financing, or partnerships.

Many departmental facilities draw water from unmetered sources. Numerous remote buildings are small and staffed by only a few employees where overall water use is low. Energy and water management responsibilities at these locations are often a collateral duty. While there are estimating practices to establish a rough baseline for water use, estimating the water savings after the implementation of water conservation measures results in estimated water use intensity. In order to accurately assess water intensity reductions all facilities need to be metered. This can be achieved through a phased approach by incorporating water meters in all new building designs and by identifying existing facilities with significant water use. Once meters are installed, an accurate baseline can be determined and reduction strategies can be applied and their performance measured.

Training and awareness further promotes the Department's efforts to achieve and sustain water conservation progress. DOE FEMP GovEnergy conference, EPA's WaterSense Program, and various webinar training sessions greatly contribute to educating the Department's energy managers, and field personnel. Many of Department bureaus showcase energy efficiency, renewable energy, and water conservation projects through kiosks and interactive displays. The Secretary's Youth Initiative further promotes conservation efforts and instills involvement with today's youth who play a key role in water management efficiencies.

Examples of milestones for 2011 and 2012 are:

- The Department will identify policy gaps and begin the process to update policy to incorporate the new EO 13514 requirements by the end of Q4 CY 2011.
- When final CEQ guidance for industrial, landscaping, and agricultural water use is issued, departmental bureaus will reassess its non-potable water uses.
- By Qtr 4 FY 2012, Reclamation Regional Office Administration Building, Boulder City, Nevada, will incorporate the use of reclaimed stormwater runoff into maintenance of its desert native landscaping. This will eliminate the need for potable water to maintain the landscaping at the new building.
- By Qtr 4 FY 2012, USGS Great Lakes Science Center, Ann Arbor, Michigan, plans to replace old, leaking, and corroded piping throughout the building.
- By September 2011, BLM will implement 4 advanced water meters at BLM facilities to remotely monitor water use.

- By Qtr 1 FY 2013, FWS will replace a deteriorating 50-year old domestic water well and tank for the Headquarters complex at Sacramento NWR, California.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

WATER USE EFFICIENCY & MGMT * Stretch Goals	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Potable Water Reduction Targets (gal/SF reduced from FY07 base year)	%	6%	8%	10%	12%	14%	16%	...	26%
Planned Potable Water Reduction (gal/SF reduced from FY07 base year)	%	6%	8%	10%*	12%*	14%*	16%*		26%*
Industrial, Landscaping, and Agricultural Water Reduction Targets (gal reduced from FY10 base year)	%	-	2%	4%	6%	8%	10%	...	20%
Planned Industrial, Landscaping, and Agricultural Water Reduction (gal reduced from FY10 base year)	%	-	TBD	TBD	TBD	TBD	TBD		TBD
Other, as defined by agency		?	?	?	?	?	?	?	?

F. Agency Status

In FY 2010, the Department reported potable water consumption of 4,089 million gallons at a cost of \$15.2 million. This established the FY 2010 water intensity at 57.8 gallons per gross square foot, which represents a 9 percent reduction relative to the FY 2007 baseline.

The Department briefly assessed non-potable water use and found that non-potable water is used for mission related functions. These water uses include: care and feeding

of animals and wildlife including endangered species; establishment and propagation of wildlife habitats; power generation and the distribution of water as a result of water rights, contracts, or Tribal agreements; and wildland firefighting. When final CEQ guidance for industrial, landscaping, and agricultural water use is issued, bureaus will reassess its non-potable water uses. In addition, policy will be updated to reflect appropriate reduction strategies for non-potable water use.

Water reuse strategies are to be considered and used where feasible and/or allowed by state and local laws. For new building designs or where redevelopment affects site hydrology, the bureaus are required, to the maximum extent technically feasible, to maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies.

G. Return on Investment

No known water projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

See "Section 2: I. Summary of Accomplishments."

5. GOAL 5: Pollution Prevention and Waste Reduction

A. Goal description

In accordance with EO 13514 - Federal Leadership in Environmental, Energy, and Economic Performance, the Department has set the following as its goals in the area of pollution prevention and waste management:

- Increase source reduction of pollutants and waste
- Divert at least 50 percent nonhazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris
- Divert at least 50 percent C&D materials and debris by FY 2015
- Reduce printing paper use
- Increase use of uncoated printing and writing paper containing at least 30 percent postconsumer fiber
- Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials
- Increase diversion of compostable and organic materials from the waste stream
- Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials
- Increase agency use of acceptable alternative chemicals and processes
- Decrease agency use of chemicals to assist agency in achieving FY 2020 GHG reduction targets [See Section II – goals 1 and 2 above]

- Report in accordance with Sections 301-313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986

B. Agency Leads for Goal

Assistant Secretary - Policy, Management and Budget
 Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
 Deputy Assistant Secretary – Policy and International Affairs
 Director, Office of Acquisition and Property Management
 Director, Office of Environmental Policy and Compliance

C. Implementation Methods

The Department of the Interior Green Procurement Plan (GPP) <<http://www.doi.gov/greening/procurement/GPP.pdf>> outlines requirements and methods of implementation for many pollution prevention goals. It highlights the requirement to purchase paper with a minimum 30 percent postconsumer content and describes requirements to minimize the use of toxic chemicals. Following the SSPP, each bureau also has a GPP. The Department plans to update its GPP to reflect new requirements from laws and policies including EO 13514.

EMS audits and environmental compliance audits conducted by the bureaus at appropriate facilities include review of pollution prevention practices and waste management. Departmental facilities must comply with federal, state, local and tribal requirements such as the Toxics Release Inventory (TRI), the Emergency Planning and Community Right-to-Know-Act of 1986, and the pollution prevention goals in EO 13514. Noncompliance with these laws and all of the requirements of EO 13423 and EO 13514 would be highlighted in these audits. Audit findings in this area are documented and corrective actions are recommended to responsible officials at the facilities.

The following DM chapters also relate to pollution prevention:

- 515 DM 3 Recycling Programs provides departmental policy, responsibilities, and functions regarding the many different recycling initiatives that have been, or that will be started in bureaus and offices throughout the Department. It is departmental policy that each bureau and office shall develop, implement, and conduct a thorough recycling program.
http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3197
- 517 DM 1 Integrated Pest Management Policy provides requirements for the Department's bureaus and offices to incorporate IPM into their pest management activities.
http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3742
- 518 DM 1 Comprehensive Waste Management prescribes departmental policy, responsibilities, and functions regarding management of wastes on departmental lands and facilities through improved awareness, program management, and accountability.
http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=2998

- 518 DM 2 on Compliance with Waste Management Requirements prescribes departmental policy, responsibilities, and functions regarding compliance with Federal, State, interstate and local waste management requirements that affect departmental lands and facilities.

http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3012

Solid waste data are collected through an online database. Changes are made to the database annually to reflect changes in the data call. Almost 1400 departmental facilities are asked to enter solid waste and green purchasing data each year. The facilities' data are rolled-up and approved at the regional, bureau, and departmental levels. The system collects detailed information on the commodities recycled and whether waste is disposed of through waste-to-energy facilities.

The pollution prevention and waste management goals will be monitored and tracked through the Department's Sustainability Council. The Council currently includes a Lifecycle Management technical work group which covers pollution prevention and solid waste management as well as green procurement. Through the Council the Department will engage stakeholders in the area of pollution prevention, work with them to review existing departmental policy and programs, and identify preferred approaches and methods for achieving these goals. The work group will update departmental policy and develop programs to best meet the needs of the Department and its bureaus in this area.

As part of the departmental EMS, the Lifecycle Management Workgroup has developed objectives and targets that will help the Department reach its pollution prevention and waste reduction goals. Objectives include the following:

- Develop a training/education and outreach campaign by Q4 FY 2013 for paper reduction, waste management and hazardous chemicals management to include:
 - o hard copy recordkeeping requirements
 - o Printing reduction strategies
 - o waste diversion strategies, reporting accuracy, etc.
 - o chemical substitution strategies to use less toxic and less hazardous chemicals
 - o best management practices
 - o templates
 - o tools
 - o guidance
- Leverage Green Purchasing program implementation success to develop and provide guidance on paper purchasing goal and strategies including strategic sourcing initiatives by Q4 FY 2012
- Improve C&D waste data availability and quality by Q4 FY 2012
- Verify C&D waste recycling practices by contractors by Q4 FY 2012
- Improve solid waste data availability and quality by Q4 FY 2012
- Perform an assessment of bureau programmatic needs and obstacles with regard to reducing municipal solid waste and hazardous and toxic chemicals management by Q4 FY 2013.

The last two objectives regarding solid waste data quality and programmatic needs for reducing solid waste will assist the agency in achieving FY2020 GHG reduction targets by collecting more accurate data for onsite and contracted waste disposal for the GHG Inventory. The Department has included questions regarding the existence and quantity of onsite waste disposal for the first time in its solid waste reporting. Facilities will respond to these questions and the Department will use the data in its next GHG inventory to more accurately depict scope 1 emissions from onsite waste disposal. This will assist the Department in assessing what actions may be taken to reduce this GHG source. The Department will also assess the quality of its contracted waste disposal data and make efforts to improve that data. The assessment of bureau programmatic needs to reduce municipal solid waste will result in an action plan that will help the bureaus to implement programs to reduce solid waste that goes to landfills, thus reducing the Department's scope 3 GHG emissions.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP and achieving the pollution prevention goals include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

POLLUTION PREVENTION & WASTE REDUCTION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Non-Hazardous Solid Waste Diversion Targets (Non-C&D)	%	29%	41%	44%	46%	48%	50%	...	50%
C&D Material & Debris Diversion Targets	%	93%	30%	35%	40%	45%	50%	...	50%

If agency uses on-site or off-site waste-to-energy, estimated total weight of materials managed through waste-to-energy	Tons or pounds	6655 tons	TBD	TBD	TBD	TBD	TBD	...	TBD
Number of sites or facilities with on-site composting programs	#	175	TBD	TBD	TBD	TBD	TBD	...	TBD
Number of sites or facilities recycling through off-site composting programs	#	49	TBD	TBD	TBD	TBD	TBD	...	TBD
If agency has on-site or off-site composting programs, estimated total weight of materials diverted to composting	Tons or pounds	11,790 tons	TBD	TBD	TBD	TBD	TBD	...	TBD
% of agency-operated offices/sites with a recycling program	%	73%	TBD	TBD	TBD	TBD	TBD	...	TBD
If agency offices located in multi-tenant buildings, % of those buildings with a recycling program	%	93%	TBD	TBD	TBD	TBD	TBD	...	TBD
% of agency-operated residential housing with recycling programs	%	77%	TBD	TBD	TBD	TBD	TBD	...	TBD

F. Agency Status

In FY2010 the Department had a non-hazardous waste diversion rate of 29.35 percent. Diverted waste includes 11,790 tons of material composted at 246 facilities and 23,269 tons of other materials recycled. Of the non-diverted waste, 6,655 tons were sent to waste-to-energy facilities for disposal and 77,738 tons went to landfills. Of the reporting office facilities, 73 percent had active recycling programs. Of the reporting residential housing sites, 77 percent of reported having active recycling programs.

In an effort to provide the most comprehensive data for waste generated by the Department’s activities, the non-hazardous solid waste data presented here includes disposal from sources such as public lands trash cleanups, habitat restoration projects, animal waste, discarded equipment, and storm debris. Some of these activities are one-time events that generate large amounts of solid waste and recycling. This can cause wide variation in the Department’s data from year to year.

Reporting facilities diverted 23,024 tons of construction and demolition waste, which amounted to 93.33 percent waste diversion for C&D waste. As part of efforts to implement the SSPP, the Department will evaluate and improve the quality of this data so that we may accurately report construction and demolition waste diversion rates.

The Department currently does not centrally manage TRI or EPCRA requirements. Bureaus and their facilities are responsible for complying with these federal disclosure laws.

Education and outreach programs will be a key component of future efforts to achieve pollution prevention and solid waste reduction goals. With an outreach program developed in conjunction with the Council, the Department will provide tools and best practices to the bureaus and offices, regional offices, and facilities in the field.

The Department submitted a General Toxic and Hazardous Chemicals Goals and Strategy Plan to OFEE in January 2008. In the SSPP, the Department provided guidance to its bureaus and offices that toxic and hazardous chemicals be managed through EMS. The Department will also be including toxic and hazardous chemicals management in its department-level EMS, which is currently under development.

Department bureaus and offices have taken steps to manage toxic and hazardous chemicals as well. They continue to manage hazardous chemicals through environmental compliance, environmental auditing, and hazard communications programs. Reclamation reports hazardous chemicals to the Department of Homeland Security for the Chemical Facility Anti-Terrorism Standards requirement. NPS assists parks in phasing out the use of leaded ammunition and identifies environmentally preferable alternatives to toxic and hazardous chemicals.

G. Return on Investment

No known pollution prevention and waste reduction projects or initiatives have been canceled or expanded due to the expected ROI.

Implementing recycling programs is a challenge for many Department facilities due to a lack of access to community or commercial recycling centers. As the nation's largest public land manager, the Department has many facilities in remote locations where the nearest recycling center may be hundreds of miles away. In weighing the time, effort, fuel expense and associated GHG emissions required to haul recyclables to a recycling center, facilities may decide that landfilling or other disposal methods are a better use of resources. There are success stories where national parks or BLM sites have partnered with communities to create community recycling programs. However, for locations where there might be a very small staff and there is no town or community nearby, the volume of recyclables produced does not warrant the costs that would be incurred if the materials were recycled.

H. Highlights

See "Section 2;.I. Summary of Accomplishments."

6. GOAL 6: Sustainable Acquisition

A. Goal Description

EO 13514 establishes a sustainable acquisition goal to ensure that 95 percent of new contract actions, including task and delivery orders, are energy efficient, water efficient, bio-based, environmentally preferable, and use non-ozone depleting substances, and contain recycled content or are non-toxic or less toxic alternatives. The Department will

ensure that 95 percent of all new contract actions include green purchasing requirements as specified by the EO 13514.

B. Agency Leads for Goal

Assistant Secretary - Policy, Management and Budget
Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition
Director, Office of Acquisition and Property Management

C. Implementation Methods

The Department is implementing sustainable acquisition through setting and monitoring EMS goals and objectives, providing comprehensive training for acquisition professionals, and updating the GPP.

The Lifecycle Management technical work group is a forum for discussion among procurement and solid waste subject matter experts from all bureaus/offices. Understanding how these program areas are interrelated drives a holistic look at the lifecycle of products and services being procured and the benefits of acquiring green products and services.

In order to determine whether 95 percent of our procurements comply with sustainable acquisition requirements, the Department will issue a data call asking the bureaus to randomly review 5 percent of their supply contracts. For services, we will review 5 percent of our service contracts that are related to building construction, renovation, or repair, building operations and maintenance, landscaping services, pest management, electronic equipment, including leasing, fleet maintenance, janitorial services, laundry services, cafeteria operations and meetings and conference services. However, these methodologies are subject to change when agencies receive guidance from CEQ and OMB.

Life Cycle Management technical work group acquisition representatives working in coordination with bureau procurement chiefs will develop measurement tools by the end of Q4 FY 2011. The workgroup will also review existing data by bureau and develop process and data quality improvement initiatives by the end of Q4 FY 2011. The approved measurement tools and data quality improvement initiatives will be implemented by Q4 FY 2012.

The Department provides quarterly webinar based green procurement training to all bureaus in addition to bureau-specific green procurement training. The procurement training is collaboratively provided by Office of the Secretary and bureau representatives. By offering environmental training in various venues, employees' awareness of the new requirements will be enhanced. Bureaus are also actively involved in various workgroups and strategic sourcing initiatives to facilitate understanding and acceptance of green procurement initiatives.

The Department will update its GPP to include the requirements of EO 13514. The revised GPP will be released by the end of Q4 FY 2011. Specifically, the GPP will

include information and requirements on purchasing the following federally-mandated, designated products:

- Energy efficient (Energy Star or FEMP designated), and low standby power devices
- Water efficient products
- Bio-based products
- Environmentally preferable products/services
- Recycled content products
- Nontoxic or less-toxic alternatives
- SNAP/non-ozone depleting substances

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

Below are the targets for implementation of EO 13514. The Department plans to fully implement the requirements of EO 13514, by the end of Q4 FY 2012. For example, the Department plans a phased approach to ensure green standards are incorporated in 95 percent of new contract actions and contract modifications. Note: Q2 FY 2011 will be completed in July 2011.

Sustainable Acquisition	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
New Contract Sustainability Target	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold

Water Efficient Products	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
Biobased Products	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
Recycled Content Products	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
Environmentally Preferable Products/Services (excluding EPEAT)	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
SNAP/non-ozone depleting substances	%	25%	35%	40%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold
Bureaus compliant with EO 13514	%	60%	70%	80%	90%	Hold	Hold	Hold	Hold	Hold	Hold	Hold

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1 st QTR FY 11	2 nd QTR FY 11	3 rd QTR FY 11 (Planned)	4 th QTR FY 11 (Planned)
Total # Agency Contracts	3876	?	18,743	34,442
Total # Contracts Eligible for Review	3876	?	18,743	34,442
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)*	202	?	937	1,722
# of Compliant Contracts	141	?	890	1,636
Total % of Compliant Contracts	70%	?	95%	95%

F. Agency Status

The Department has a comprehensive GPP that includes energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, products that also contain recycled content, and nontoxic or less-toxic alternatives. The Department has provided quarterly live webinar training and will continue to do so into the future. Training is intended for acquisition personnel, contracting officer's technical representatives, purchase card holders, and program managers and analysts. The Department of the Interior University (DOIU) offers environmental courses throughout the year and across the nation.

To ensure compliance, the Department conducts acquisition management reviews of its bureaus and offices. Elements in the review ascertain the incorporation of green procurement requirements in contract vehicles. To ensure the ARRA funded contracts included green procurement requirements, the Department developed checklists, which include triggers for the incorporation of green procurement requirements, as appropriate.

Bureaus and offices employ various strategies, including review of 100 percent of their contracts, to ensure compliance. As appropriate, they have also developed corrective action plans to address shortcomings in the GPP preference program. Bureaus and offices have supplemented the DOIU course offerings with bureau-centric training for contracting officers.

The Department will continue to improve its strategies and actions through the Department's EMS to meet the sustainable acquisition goals as required by EO 13514. The Department will also continue its training, education, and acquisition management reviews.

G. Return on Investment

No known sustainable acquisition projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

The Department has successfully implemented two mandatory strategic sourcing initiatives and is developing a third initiative that also incorporates sustainable acquisition requirements. The two initiatives in place provide multi-function printing devices (copiers) and office supplies. The copiers are Energy Star compliant and are all duplex capable. The office supplies contract converts orders from traditional products to green alternatives where such products exist. The third initiative, still in development will provide copier paper with a minimum content of 30 percent post-consumer recycled content while promoting 50 percent and 100 percent post consumer content. Two noteworthy objectives of the copier paper contract will be to accurately track paper consumption throughout the Department and therefore lower consumption per EO 13514 but also to ensure that all consumers are using minimum 30 percent post-consumer recycled content.

The Department's quarterly training was well received by the bureaus and promoted successfully throughout the Department as it is a free training opportunity in addition to bureau-sponsored training.

The requirements of EO 13514 to achieve 95 percent compliance with green procurement requirements is challenging for the Department. Definitive, consistent guidance from OMB would improve the capability of the Department to reach its goals and would facilitate the procurement community's provision of greener products and services.

The Department, as well as other agencies, would benefit if systems such as the Federal Procurement Data System – Next Generation were enhanced to accurately track procurement of green supplies and services.

7. GOAL 7: Electronic Stewardship and Data Centers

Note, narratives below are designated by electronic stewardship and data centers.

Electronics Stewardship

A. Goal Description (Electronic Stewardship)

The Department's targets are:

- Ensuring procurement preferences for EPEAT-registered electronic products
- Establishing and implementing policies to enable PM, duplex printing, and other energy-efficient or environmentally preferable features on all eligible agency electronic products
- Employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products
- Ensuring procurement of Energy Star and FEMP-designated electronic equipment

B. Agency Leads for Goal (Electronic Stewardship)

Assistant Secretary – Policy, Management and Budget

Deputy Assistant Secretary – Technology, Information, and Business Services

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Chief Information Officer

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

C. Implementation Methods (Electronic Stewardship)

The Department's Electronics Stewardship (ES) Program is an interdisciplinary program that benefits from joint leadership by those that oversee the four major ES disciplines: environmental, IT, acquisition, and property management through the Electronics Stewardship Task Force (ES Task Force). The ES Task Force is co-chaired by OEPC, the PAM, and OCIO and has active representation from each bureau and POB. Thus the ES program is tightly interwoven with the IT, property management, acquisition, environmental, budget formulation, and budget execution.

All methods to implement the ES program are in the Department's Electronics Stewardship Implementation Plan (ES Plan). The current ES Plan, dated June 2008, is nearly fully implemented. The Department has an updated ES Plan in draft that addresses: 1) complying with the remaining PM goal, 2) improving data quality, and 3) maintaining compliance.

Progress on implementation of the ES Plan is measured by a comprehensive year-end ES program evaluation. The program evaluation provides data needed for the January OMB scorecard submission. The bureau ES programs submit data identifying progress on milestones, implementation gaps, challenges for resolution, and opportunities for mutually beneficial program development as well as opportunities for going beyond compliance.

Detailed information about implementation methods, milestones, and strategies are available in the ES Plan. A copy of the ES Plan and its appendices is available on the web at: www.doi.gov/greening/electronics.

D. Positions (Electronic Stewardship)

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table

See table on page 87 under E. Planning Table (Data Centers)

F. Agency Status (Electronic Stewardship)

The Department has an established history of championing electronics stewardship. Examples of past commitment to electronics stewardship include being one of the first agencies to use the Federal Prison Industries (UNICOR) electronics recycling program in 2001, and being the first agency to use the Electronic Product Environmental Assessment Tool (EPEAT) criteria in a large procurement.

After signature of EO 13423, the Department developed the ES Plan. It was signed in June 2008. The ES Plan creates and implements agency policy for the Department's electronic product life-cycle management program including: purchase of Energy Star certified and EPEAT registered electronics, activations of Energy Star PM features, environmentally sound disposal of electronics, and purchase of energy-efficient servers and data centers.

The draft update for the ES Plan will also address the Federal Data Center Consolidation Initiative and is likely to address duplex printing.

The Department has fully implemented the requirement to purchase 100 percent Energy Star certified and 95 percent EPEAT registered electronics for appropriate desktops, laptops, and monitors.

The Department has also fully implemented the requirement to dispose electronics in an environmentally sound manner by reusing working equipment through the GSA Xcess process and the GSA Computers for Learning Program. Nonworking equipment is recycled through UNICOR, and private recyclers. The private recyclers are selected using best practices posted to the Federal Electronics Challenge website. The Department is also working to address how to educate property managers about the emerging requirement to use Responsible Recyclers (R2) certified recyclers.

For these fully implemented goals, the Department's will maintain compliance, improve compliance where possible, and continue efforts to improve compliance data verification

The Department has partially implemented the requirement for activating Energy Star PM features. The Department, via the ES Plan, has a policy in place that 100 percent of appropriate desktops, laptops, and monitors will be power managed. Also, several of the Department's sites have conducted pilot tests for PM of desktops, laptops, and monitors via PM software installed on the network. The network software enables automated shut-off during off-hours and maintains IT operational management capabilities such as pushing software updates.

OEPC put together a PM ROI paper showing the energy savings and the benefit to the Department's bottom line. The ROI paper recommended a department-wide network PM solution. This approach was approved by the Chief Information Officer, the Deputy Assistant Secretary for Budget, Finance, Performance, and Acquisition, and the Director of OEPC. The Office of the Chief Information Officer has the lead for determining the path forward on a department-wide PM solution, including the challenging task of making the approximately \$1 million initial purchase for the PM software.

Top-level departmental management from IT, budget, and environmental management concur that network software implementation of PM will be the Department's path to meeting the PM goal. The Department, however, lacks initial funding to purchase software. Some bureaus have successfully moved forward on PM, but the Department as a whole does not yet have a PM solution. The Department will implement an enterprise wide solution in coordination with Data Center Consolidation Initiative during FY 2011.

Once PM for desktops, laptops, and monitors is addressed, the Department will ramp up to address PM for other electronic products owned by the Department. This issue will be vetted by the Council to develop recommended courses of action. A path forward will be initially discussed at the technical work group level and subsequently briefed to the Implementation Committee for endorsement and review of policy, proposed phased timeline, funding or other department-level considerations. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

Duplex Printing Policy

The Department has a history of encouraging duplex printing. The Department's first major commitment to duplex printing occurred with the 2005-2010 department-wide mandatory-use IT hardware contract. The contract included desktop printers and required a mandatory duplex printing option available for purchase with all printers offered on the contract.

Newly awarded this year, the department-wide mandatory use Multifunctional Printing Devices contract requires all machines to be Energy Star and programmed at the manufacturer with duplex printing as the default factory setting.

To address the creation of a department-wide duplex printing policy and ensure broader implementation of duplex printing best practices, the Council will develop recommended courses of action, including formation of an ad hoc work multidisciplinary work group to develop duplex printing policy. The work group membership is anticipated to include individuals from the Interior Publishing Council, PAM, OEPC, OCIO, and the bureaus.

G. Return on Investment

No known electronics stewardship projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

See "Section 2:,I. Summary of Accomplishments."

Data Centers

A. Goal Description (Data Centers)

The Department's targets are below:

- Update agency policy to ensure implementation of best management practices for energy-efficient management of servers and federal data centers
- Identify how the Department will meet technology energy consumption reduction goals in its data centers.
- Define how the Department will meet the technology energy reduction goals in data centers.

B. Agency Leads for Goal (Data Centers)

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Technology, Information, and Business Services

Chief Information Officer

C. Implementation Methods (Data Centers)

The Department's Innovations and Efficiencies Team (DIET) was chartered to make recommendations on how the Department can consolidate major components of its IT infrastructure, including data centers and the assets therein. In December 2010, Secretary Salazar expanded the scope of the Department's consolidation efforts with the issuance of SO 3309. SO 3309 effectively centralized IT assets within the

Department and transferred the management and oversight responsibility to one Department OCIO. The OCIO launched the IT Transformation (ITT) initiative as a result of the SO and subsumed the DIET initiative into the broader consolidation effort. As part of ITT the Service Delivery Division of the OCIO is leading the development of detailed, executable plans associated with data center consolidation. The Department OCIO is coordinating and managing this effort and will respond to requests associated with this initiative on behalf of the Department.

The OCIO, working in conjunction with OEPC, will issue policy on meeting electronic stewardship objectives. The DIET Infrastructure Consolidation project submitted the Department's Federal Data Center Consolidation Initiative (FDCCI) to OMB on August 30, 2010. The FDCCI also references how the Department's data center consolidation efforts relate to the SSPP.

Formulating an application assessment criteria and establishing an accurate baseline inventory of IT assets, including servers, data storage units, and associated business applications, is a primary objective of the ITT initiative. The Department is establishing a repeatable systematic collection method for IT assets via electronic auto-discovery tools. Conducting an IT asset inventory is an integral part of the Infrastructure Consolidation project and will focus on developing the baseline inventory. Initial and final IT asset inventories were provided to OMB on April 30, 2010 and July 30, 2010. The Department is also establishing policies and technical configuration standards to enable the successful deployment of automated enterprise-wide network scans. The team is working with the respective departmental bureaus and offices to analyze and validate information generated through the auto-discovery. This will confirm team findings and conclusions. The results of the IT asset inventory were key inputs to the Final Data Center Consolidation Plan submitted to OMB on August 30, 2010.

One of the Department's goals is to make IT "green." This will be accomplished by:

- Reducing energy usage at data centers
 - Closing inefficient data centers. 95 data centers/closets are targeted for consolidation through CY 2014.
 - Optimizing cooling, power, IT assets, and networks
- Reducing energy usage at co-located sites.
 - Reducing redundant equipment at collocated sites.

Data center milestones include:

- The Department has adhered to OMB's FDCCI timeline and submitted these data center consolidation deliverables on schedule. These documents and files are available on request from OMB or the Department.
 - April 30, 2010 – Initial IT Asset Inventory of all departmental data centers
 - June 30, 2010 – Initial Data Center Consolidation Plan
 - July 30, 2010 – Final IT Asset Inventory of all departmental data centers
 - August 30, 2010 -Final Data Center Consolidation Plan
- The Department continues to improve our IT Asset Inventory for equipment in data centers and work with departmental bureaus/offices to create the

executable Project Plan for Data Center Consolidation. The Project Plan for Data Center Consolidation will be developed to ensure 85 percent confidence in the scope, schedule and costs and will have an Integrated Baseline Review (IBR). After the IBR, the Project Plan for Data Center Consolidation will be presented to departmental leadership for approval to implement and funding to proceed with the target data center consolidations.

- On August 16, 2010, OMB communicated that the Department was required to provide an Improvement Plan for departmental IT Infrastructure to be submitted to OMB no later than September 16, 2010. The Department participated in a Tech-Stat related to this Improvement Plan in mid-October 2010. The “Green IT” mentioned above was included in this review.
- Evaluate automated power-off technologies during off-hours for enterprise IT assets deemed not mission critical during these times (December 31, 2010).
- Employ forward-looking IT market offerings in the server and data storage arenas that facilitate maximizing IT asset utilization through server virtualization, data disk storage optimization, and elimination of tape backup where feasible. These solution sets seek to improve server and storage IT asset utilization by 60 percent+ and 50 percent+ respectively.
- The Department completed a draft concept of operations for Data Center Consolidation in January 2011.
- The Department initiated one on one planning sessions with component organizations in March 2011.
- The Department will complete an integrated infrastructure plan including a Data Center Consolidation Plan by the end of FY 2011.
- Consolidate 17 data centers by the end of FY 2011
- DOI partnered with Indian Health Service (IHS) in consolidating the IHS data center with DOI data center in Albuquerque, NM. This enabled IHS to close their data center as part of the FDCC project

D. Positions (Data Centers)

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate and with appropriate skills and experience to accomplish the new requirements (inventories, monitoring, reporting). The DOI ITT initiative includes a Workforce Planning function to fully analyze the Department’s staffing needs to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

E. Planning Table (Data Centers)

Establishing annual performance metrics in the table below is part of the FDCCI Data Center Consolidation Plan. These are being determined and will be provided in future updates.

ELECTRONIC STEWARDHIP & DATA CENTERS	Unit	FY 10	FY 11	FY 12	FY 13	FY14	FY15
% of electronic product acquisition covered by current Energy Star specifications that must be energy-star qualified	%	100%	100%	100%	hold	hold	hold
% of covered electronic product acquisitions that are EPEAT- registered	%	95%	95%	95%	hold	hold	hold
% of covered electronic product acquisitions that are FEMP- designated. See Note 1	%			95%	hold	hold	hold
% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use	%		20%	40%	60%	80%	100%
% of agency, eligible electronic printing products with duplexing features in use	%	10%	20%	40%	60%	80%	100%
% of electronic assets covered by sound disposition practices	%	100%	100%	100%	100%	hold	hold
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE). See Notes 2 and 3.	%	5%	0%	0%	40%	60%	80%
Reduction in the number of agency data centers	#	0	17	12	7	59	45
% of agency data centers operating with an average CPU utilization greater than 65% See Note 3.	%		*	*	hold	hold	hold
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency. See Note 3.	#		*	*	*	*	*

Note 1: At this time, the Department is unable to determine acquisitions of FEMP designated products.

Note 2: The OCIO does not support investing in the engineering and installation of data facilities that are targeted for consolidation within the next three fiscal years.

Note 3: Planning Table metric TBD. We are challenging the value of theoretical measures (utilization) in the FDCCI Task Force. This should be a “shared” metric between the two initiatives. It should be accurately and economically measured and provide a more accurate indicator of energy/cost savings potential. Examples under consideration include: The number of virtual servers vs. the number of physical servers, the number of virtual systems per physical host, and the SQFT occupied by IT systems. Establishing percentage targets should be delayed until accurate baselines can be determined (reference: 3/22/2011 FDCCI Task Force Meeting).

F. Agency Status (Data Centers)

The Department, consistent with the OMB direction for consideration of cloud first alternatives, is actively pursuing data center co-location and consolidation in order to realize cost savings, operational efficiencies, and implementing “green IT” through significant reductions in energy consumption. This effort specifically will target the closure of Data Centers, consolidation of enterprise server, storage, and data centers infrastructures throughout the Department’s computing environment nationwide. The Infrastructure Consolidation project submitted the Department’s FDCCI to OMB on August 30, 2010. The FDCCI also references how the Department’s data center consolidation efforts relate to the SSPP.

- The Department has completed analysis of geographic dispersion of Data Centers and proposed overall concept of operations.
- The Department as of April 8, 2011 has consolidated four data centers targeted for consolidation targeted for the first half of FY 2011.
- The Department is engaged with subordinate organizations to develop and validate plans for additional data center consolidations.

G. Return on Investment (Data Centers)

By July 31, 2011 the Department will complete development of a business model that establishes a cost baseline and expected savings. In addition, the business model identifies service improvement in terms of reliability, performance, and access.

H. Highlights

See “Section 2:;I. Summary of Accomplishments.”

8. GOAL 8: Agency Innovation

A. Goal Description

Describe any innovative methods that the Department is using to expand its sustainability mission beyond what is required in EO 13514 and EO 13423 and the SSPP.

B. Agency Lead for Goal

Assistant Secretary – Policy Management and Budget.

Chief Information Officer

Director, Office of Environmental Policy and Compliance

Director, Internal Communications – DOI Office of Communications

C. Implementation Methods

The implementation method includes creating the opportunity for sharing best management practices across the Department. The active participation of all Department employees is critical to the success of sustainability initiatives and to the development of innovative strategies and tactics for sustainability. The Department engages in regular communication with employees to solicit input, celebrate successes, and increase employee awareness of sustainability goals and tools. Current innovative

internal communications tactics include the Department's annual Environmental Achievement Awards program, the Greening Interior website (www.doi.gov/greening), and the Department's GreenDOI Challenge. Additionally, the Department's *oneINTERIOR* all-employee intranet is used to feature sustainability best practices, tips and tools, and to celebrate sustainability successes at our parks, refuges and other facilities.

- The Department's Environmental Achievement Awards convey high-level recognition to departmental employees and partners for departmental projects in the areas of: waste/pollution prevention, recycling, green purchasing, EMSs, sustainable design/green building, and alternative fuel and fuel conservation in transportation. All nominations are screened to ensure compliance with all applicable laws, rules, and regulations.
- In December 2009, the Department launched the Green DOI Challenge – “Let Your GREEN Ideas Shine Through.” The challenge is based on the President's GreenGov Challenge and all employees were invited to submit their ideas to help green the Department. In an amazing response, more than with over 1,700 ideas were submitted, in the following categories:
 - Reducing GHG emissions
 - Conserving energy
 - Conserving water
 - Eliminating waste
 - Purchasing sustainable products and services
 - Making our buildings sustainable
 - Other innovative ideas

Subject matter experts reviewed these ideas and selected the top ten “winners.” The top winning idea, submitted by Renee Snyder from the BLM, was to place wind-up flashlights in the Department's vehicles for use when out in the field and in emergencies. These wind-up flashlights do not need batteries to operate thus reducing waste and saving the Department resources. This idea was implemented and wind-up flashlights were distributed to facilities to be placed in all of the Department's sedans and light trucks. Other top ideas are also being considered for implementation at the Department and the bureaus/offices. The success of the Green DOI Challenge makes it a promising candidate for replication on an annual or biannual basis.

- FY 2010 was the first full year of energy savings from the DOE Super ESPC at the USGS Great Lakes Science Center in Ann Arbor, Michigan. The project included an innovative geothermal heat pump hybrid system with variable frequency drives and direct digital controls along with energy efficient lighting and water saving devices. The first year savings were a 24 percent reduction on energy use, a 31 percent reduction on energy costs, and a 68 percent reduction on water consumption.

D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100 percent of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

E. Planning Table

AGENCY INNOVATION & Government-Wide Support	Units	FY 10	FY 11	FY 12	....	FY 20
Programs, Projects, Initiatives that support Gov-wide efforts	Initiatives	2	?	?		?
Other, as defined by agency						

F. Agency status

The Department has a history of developing innovative methods to expand the sustainability mission. Included below is a sample of recent accomplishments and collaborative projects that exceed requirements in EO 13514 and activities previously discussed in the SSPP. Innovations can be adopted and modified by other agencies to meet sustainability goals; robust internal communication about these and other sustainability success stories will foster additional innovation and encourage replication. This list will be updated on an annual basis.

1. Climate Change Initiatives

On Sept. 14, 2009, Secretary Salazar signed SO No. 3289: Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources. This SO launched the Department’s first-ever coordinated strategy to address current and future impacts of climate change on America’s land, water, wildlife, cultural heritage, and tribal resources.

The SO establishes the following framework through which the Department’s bureaus will coordinate climate-change science and resource-management strategies.

Energy and Climate Change Council

Under the leadership of the Secretary, Deputy Secretary and Counselor to the Secretary, this council will coordinate renewable energy efforts and response to the impacts of climate change within and among our bureaus. It will also work to improve the sharing and communication of climate change impact science, including through www.data.gov.

Eight Department of the Interior Climate Science Centers

Serving Alaska and the Northeast, Southeast, Southcentral, Southwest, Northwest, Northcentral, and Pacific Islands regions, these centers will synthesize and integrate climate change impact data and develop tools that the Department's managers and partners can use when managing land, water, fish and wildlife, and cultural heritage resources.

Network of Landscape Conservation Cooperatives

These cooperatives will engage the Department and other federal agencies, local and state partners, tribes, and private landowners to craft practical, landscape-level strategies for understanding and responding to climate change impacts. The cooperatives will focus on impacts such as the effects of climate change on wildlife migration patterns, wildfire risk, drought, or invasive species that typically extend beyond the borders of any single national wildlife refuge, Bureau of Land Management unit, or national park.

2. Climate Friendly Parks

The Climate Friendly Parks Program began as a collaboration of the NPS and the EPA that helps parks fulfill their role as stewards of the nation's most important natural and cultural resources. By measuring and reducing GHG emissions, national parks can slow the effects of climate change and serve as models of environmental leadership for present and future generations.

The Climate Friendly Parks program helps parks reduce GHG emissions by developing plans to reduce energy and water use, design and construct sustainable facilities, and develop alternative transportation systems. Across the country, park staff, partners and volunteers are forming green teams and developing alliances with a long-term commitment to sustainable practices for national parks and surrounding communities.

Becoming a Climate Friendly Park entails completing three "Milestones":

- Submit an application.
- Develop a GHG emission inventory using the Climate Leadership in Parks (CLIP) Tool.
- Complete a Climate Action Plan describing the actions the park will take to reduce its GHG emissions. The Action Plan produced by the CLIP Tool is formatted to be compatible with the park's EMS.

To maintain status as a Climate Friendly Park, member parks are required to continuously engage in two “Ongoing Activities”:

- Implement the Action Plan.
- Monitor progress and report results.

The Climate Friendly Parks program aims to provide national parks with comprehensive support to address climate change both within park boundaries and the surrounding community.

The program offers:

- Staff training and/or a tailored Climate Friendly Parks workshop
- Carbon management inventory tool designed specifically for national parks
- Carbon management action planning tool designed specifically for national parks
- Technical assistance conducting a park specific emissions inventory
- Technical assistance developing a park specific Climate Action Plan
- Climate Friendly Parks best practices and related resources
- EMS expertise
- National recognition
- A dynamic visitor engagement program
- Education and outreach products

NPS is currently collaborating with both the U.S. Forest Service and the FWS on the CLIP tool by making minor adjustments to the tool so that they can better use it in their units. Both agencies found that it was the most accurate and easy to understand inventory tool they have found. In general, there is significant interest among the land management agencies in using the tool, or some version of it, for not only conducting facility level inventories, but also for its ability to provide analytics and calculators that allow units to evaluate different scenarios and actions for their emission reduction potential and ROI (CLIP Module 2). NPS made presentations on the CLIP tool at a National Meeting of State Park Managers, and there are several state parks in the Northeast and Pacific West that are using the tool.

For specific outcomes as a result of this program please see “Section 2:,I. Summary of Accomplishments.”

3. Evaluation of Helix Wind Turbine Technology at Quivira National Wildlife Refuge

In an effort to be carbon neutral by 2020, the FWS partnered with National Renewable Energy Laboratory (NREL) to assess the potential for implementation of vertical axis wind turbine (VAWT) technology on National Wildlife Refuge System sites where avian mortality from turbine collision is unacceptable and to investigate the feasibility and cost effectiveness of VAWT technology at Quivira National Wildlife Refuge in central Kansas.

4. Paperless on Windows at the Office of Surface Mining

The Division of Compliance Management (DCM) within OSM is responsible for ensuring compliance with the reclamation fee requirements of the Surface Mining Control and Reclamation Act. It accomplishes this mission by conducting audits of coal companies nationwide. Employees are strategically located throughout the United States to minimize travel costs. An average of 150 audits is completed each year. DCM auditors now function in a completely paperless environment using Paperless on Windows (POW), an integrated, automated audit process developed internally from off-the-shelf Microsoft products combined with Adobe. When audits were conducted using archaic green ledger sheets and red pencils, this work required a staff of over sixty. This same work is now accomplished with a staff of thirty-four. The need for clerical support has been reduced because of the elimination of handling paper. DCM has identified two-thirds of the clerical positions for restructuring through attrition. POW has also increased employee participation in telework. The majority of auditors now work from their homes, eliminating the daily commute and its associated environmental costs. DCM has closed seven offices and is in the process of closing an additional office as the need to store hard copy files is eliminated. This effort has caused electronic processes to replace paper-based processes in other divisions within OSM, which have revamped some operations to work in tandem with this paperless initiative.

5. Appalachia Team, The Green Wall

The Office of Surface Mining Shawnee Wells Landslide Project near Pikeville, Kentucky featured the construction of a Green Wall which abated an OSM Abandoned Mine Lands emergency landslide. An unstable land mass had already damaged a wooden fence and was threatening to damage the two homes, thus placing the occupants of the homes in extreme danger. To remedy this situation, the wall was essentially constructed of compacted lifts of the site's native soil integrated with layers of geogrid reinforcement. Welded wire facing units were added to give it some geometry. Turf reinforcement matting was placed to keep the soil intact and serve as a medium to support vegetation. A stone blanket drain was incorporated to isolate the soil mass from re-saturation. All this combined to create a gravity wall that was able to support and abate the emergency and promote vegetation. This green initiative did not come at a premium; it was both economical and practical. Traditional landslide abatement requires the use of materials such as tons of steel beams, rebar, trout and concrete, as well as the excavation, transportation and storage of landslide material. This Green Wall reduced the need for those requirements. The green concepts utilized on this project can be adapted to abating other AML emergencies and reclamation projects by both OSM and state reclamation programs.

6. Portage Lakefront and Riverwalk

The NPS Portage Lakefront and Riverwalk, located within the City of Portage, Indiana, is on a site previously owned by the National Steel Company, which used the site as an open pit dump to store acids and other liquid residues from its steel making operations. National Steel cleaned up the site and removed all of the toxic materials before it was acquired by the National Park Service in 2004. In 2005, the City approached the NPS with a desire to partner with them to design, plan and construct recreation facilities. The

project included a 3,200 sq. ft. pavilion with multipurpose room, restrooms, and visitor information desk; a 125 car parking lot; entrance road; 0.5 miles of trails; fishing pier; 950-foot breakwater walkway; and a 1,500-foot riverwalk. The design of the site focused on sustainability using recycled materials, geothermal heating and air conditioning, local materials, on-site waste reduction, water use reduction, and of course, the rehabilitation and reuse of a former brownfield site. In total, the City contributed \$200,000 and secured \$10 million dollars for the planning, design and construction of project from the Northwest Indiana Redevelopment Authority (RDA), realizing that once completed, the facility would become the property of the National Park Service. No federal funding was allocated to the development of the project. Portage Lakefront and Riverwalk has become a regional symbol of the collaborative efforts of federal, state, and local governments with the private sector for reclaiming a contaminated site and showcasing a model of sustainability for the public to enjoy while preserving the significant natural resources, dune habitat, and endangered plants found on the site.

7. Long Beach West Restoration Project

Long Beach is part of the longest stretch of barrier beach in Connecticut and contains sand dunes, tidal wetlands, and sand flats. Long Beach and the adjacent Pleasure Beach, shelter a 700-acre estuarine system which includes the Great Meadows Unit of Stewart B. McKinney National Wildlife Refuge, which provides critical nesting habitat for federally threatened piping plovers and state threatened least terns, is an important migratory bird stopover area, and is home to five state listed plant species as well as critical shellfish beds. Like most coastal habitat in Southern New England, Long Beach also suffers from the impacts of development on this sensitive area. After the wooden bridge that provided access to the area was destroyed by a fire in 1996, the site was abandoned leaving 37 cottages, 25 outbuildings, four docks, retaining walls, debris, and trash. In recent years vandals burned down some of the cottages and buildings and defaced others with graffiti. The restoration of this site entailed complete removal of all hazardous materials including lead, asbestos, and PCBs, as well as the houses and debris, preventing contamination on the nearby refuge and surrounding coastal habitat. This project involved extensive partnering with town, state, federal, and private partners including the Town of Stratford, Connecticut, the Connecticut Department of Environmental Protection, the Trust for Public Land, the Environmental Protection Agency, the National Fish and Wildlife Foundation, Audubon Connecticut, Land-Tech Consultants, Inc., Ducks Unlimited, and the Fairfield County Community Foundation. In addition to other funding sources, the Fish and Wildlife Service's Southern New England-New York Bight Coastal Program secured \$909,000 in American Recovery and Reinvestment Act funds for demolition and restoration at the site. This site has been fully restored for wildlife and for passive human recreation.

8. The Appalachian Coal Country Team and Western Hardrock Watershed Team

The OSM Appalachian Coal Country Team and Western Hardrock Watershed Team, known as the OSM VISTA Teams, assist rural communities impoverished by environmental degradation and its consequences to make their home-place-watersheds healthier places to live and work. The Teams are an innovative partnership among the

Office of Surface Mining (OSM), AmeriCorps Volunteers In Service To America (VISTA), and community improvement groups. Since receiving an Environmental Achievement Award in 2004, the OSM VISTA Teams have expanded beyond rural Appalachia to include the Rocky Mountain mining regions. The Western Hardrock Watershed Team has 14 OSM VISTA volunteers in Colorado and New Mexico. The Teams arm community organizations and watershed-based groups with the training, tools and volunteer support necessary to help local citizens become effective environmental stewards, community leaders and accelerators of change in places indelibly marked by the environmental legacy of pre-regulatory mining. Together, the Teams and their partners are propelling a new economy based on conservation and development, strong partnerships, engaged citizens and promoting youth in the outdoors.

9. Design and Construction of Net-Positive Energy Housing, John Day Fossil Beds National Monument

The NPS Park Management Team at John Day Fossil Beds National Monument successfully contracted and constructed an unconventional, state-of-the-art zero-energy home as a replacement for the ranger residence at the remote Painted Hills Unit using American Reinvestment and Recovery Act funding. The original residence was constructed in the late 1970s and had reached the end of its useful life. It was costly to maintain, did not have a foundation, was built on expansive soils, and was not energy efficient. The replacement house has better than Energy Star appliances, a mini-split, high efficiency heat pump to provide heating and cooling, triple glazed, argon gas-filled windows, double- and triple-sealed doors to eliminate air leakage, a grid-tied photovoltaic system and drain-down solar hot water panels on a south-facing roof, optimally angled for solar gain. The home will actually generate 43 percent more energy than it will consume, eliminating utility costs to the ranger that resides there. All energy generated by the project is carbon-free. This residence was constructed at a cost comparable to standard construction and could be a prototype for future housing in the National Park System. Constructing this residence exposed local contractors and the public to a new way of building that is far more energy efficient than any they were familiar with and demonstrated the National Park Service commitment to energy sustainability, green building practices, and reducing our carbon footprint.

10.Redwood National and State Parks

Redwood National Park and California State Parks jointly manage the national park and three state parks under the name, Redwood National and State Parks (RNSP). Seven joint projects have been completed over the past ten years with NPS and the California State Parks (CSP), as well as through a partnership with the Schatz Energy Research Center (SERC) at Humboldt State University. The SERC partnership was facilitated through the Department of Energy's University National Park Energy Partnership Program (UNPEPP), which funds projects allowing environmental engineering students to design and build or retrofit energy efficient facilities within national parks. These partnerships have resulted in multiple renewable energy and energy efficiency improvements including the following: photovoltaic systems for a maintenance facility, the park's existing joint headquarters building, and the environmental education center;

140 tubular skylights to save on electricity for lighting; no flush and low flush toilets and a water recycling system in the vehicle/equipment wash bay; minimized exterior lighting to limit impacts on the night sky and nearby residences; HVAC and plug-in efficiency improvements; a solar powered campground comfort station and shower with hot water and electricity; transitioning from diesel generators to natural gas and the electrical grid for water heating and electricity; and a PV system linked to a hydrogen fuel cell to provide power to the park's remote fire lookout tower. The partnership has resulted in a joining of the NPS Climate Friendly Parks program with the CSP Cool Parks program. Through these programs, both the NPS and CSP encourage parks in their respective systems to demonstrate low carbon emission technologies and activities.

11. Sheldon-Hart Mountain National Wildlife Refuge Complex Headquarters

The former headquarters office for the FWS Sheldon-Hart Mountain NWR Complex, with two large national wildlife refuges, has been in deteriorating leased space for several decades with health and safety issues including asbestos, lead paint, radon gas, faulty HVAC, insect pests, compliance with fire regulations, and inadequate cleaning and repairs. Refuge staff examined renovation of current space, co-locating with other federal agencies in another GSA facility, other rental options, and building on federal land. Purchase of a 78 acre property and remodeling the commercial-styled building into office space was the most cost-effective and sustainable practice to provide facilities to support the management of the two refuges. The existing facility had energy efficient features including passive solar design, effective insulation and a solar water heater. The building was remodeled to include further energy efficiency improvements, including groundsource heatpump HVAC and conversion of lighting to highly efficient fluorescent and LED lighting. Interpretative programs at the site display sustainability and building revitalization and utilization rather than new construction at a federal facility. The investment in remodeling to provide office space for the new headquarters is expected to be recovered in about 13 years when compared with the current GSA leased space cost and retrofitting existing facilities for office space will amount to about just half the cost of building a new office.

12. Southeast Louisiana National Wildlife Refuge Complex

The partnership between FWS, Southeast Louisiana National Wildlife Refuge and Dr. Dawn Lavoie, U.S. Geological Survey (USGS), Dr. Asbury Sallenger, USGS, Dr. James Flocks, USGS, and Dr. Michael Minor U.S. Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) began shortly after Hurricane Katrina in 2005. The coast of southeast Louisiana was devastated; wind and water from the storm surge removed 75 percent of the land at Breton National Wildlife Refuge (NWR). The refuge is the key string of barrier islands located off the coast of southeast Louisiana. These islands are extremely important for the protection of the Louisiana coast and support tens of thousands of shore and water birds. They include important nesting grounds for the brown pelican, a species just removed from the endangered species list, and an important wintering ground for the piping plover, an endangered species. The partnership resulted in an intensive study and produced an exceptional, scientific study and a 180 page report titled Sand Resources, Regional Geology, and Coastal

Processes of the Chandeleur Islands Coastal System: an Evaluation of the Breton National Wildlife Refuge. This study along with the partnerships formed, later proved to be invaluable during the response to the BP Deepwater Horizon oil spill disaster of 2010. Because of the partners' commitment to good coastal science and the willingness to work across bureaus, Breton National Wildlife Refuge was protected from the oil and a sand berm built near the refuge provided some improvements rather than harm to the refuge.

13. Turnbull National Wildlife Refuge - Inland Northwest Complex Headquarters

This FWS super-insulated high performance facility is a model of sustainable design. The building was constructed using stone from a regional quarry, and includes a cool roof; daylighting; low-e glazed windows; efficient LED lighting; occupancy sensors; and a 14-ton geothermal heat pump, resulting in energy performance 32 percent better than an average building. A 4.9-kW grid-tied solar photovoltaic array produces electricity, and domestic hot water is provided by a roof-mounted solar collector system. The 15.5 MWh of renewable power generated saves 10 metric tons of GHG emissions annually. Inside, low-VOC carpets, paints, and adhesives provide a healthy work environment. Outside, landscaping with native plants and bioswales reduce runoff. The standing-seam weathered copper-colored metal roofing (used instead of composition shingles), which was selected to protect the building from wildfires, meets the ENERGY STAR® Cool Roof reflectivity criteria. During construction, more than 50 percent of the construction waste was diverted from landfills. The office building is equivalent to a LEED Silver rating.

G. Return on Investment

No known data center projects or initiatives have been canceled or expanded due to the expected ROI.

H. Highlights

See "Section 2;.I. Summary of Accomplishments."

Section 3: Agency Self-Evaluation

Below are the Agency Self-Assessment questions from the Office of Management and Budget and the Council on Environmental Quality.

Does your Sustainability Plan incorporate and align sustainability goals, GHG targets and overarching objectives for sustainability with the Agency Strategic Plan?	Yes
Does it provide annual targets, strategies and approaches for achieving the 2015 and 2020 goals?	Yes
Is the Sustainability Plan consistent with the FY2012 President's Budget?	Yes
Does the Sustainability Plan integrate all statutory and Executive Order requirements into a single implementation framework for advancing sustainability goals along with existing mission and management goals, making the best use of existing and available resources?	Yes
Does your plan include methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

Other Key Questions for 2011:

1. Did your agency meet by 12/30/10 due date and/or is it now able to demonstrate comprehensive implementation of the EO 13423 Electronic Stewardship goals?

- Acquire at least 95% EPEAT-registered electronics - Yes
- Enable Energy Star or PM features on 100% of eligible PCs – No. The Department will implement an enterprise wide solution in coordination with Data Center Consolidation Initiative during FY 2011.
- Extends the life and/or uses sound disposition practices for its excess or surplus electronics - Yes

2. Is your agency tracking and monitoring all of its contract awards for inclusion of requirements for mandatory federally-designated green products in 95% of relevant acquisitions?

(If it is finding non-compliance issues, then it should identify corrective actions the agency is taking this year to demonstrate compliance with the 95% sustainable acquisition goal by the end of FY2012.)

No.

3. Has your agency completed energy evaluations on at least 75% of its facilities?

(If agency has not met this goal, then it should describe plans for catching up on this requirement in the next 6 months.)

Yes. The Department anticipates completing energy and water evaluations in 75% of its covered facilities by June 30, 2011.

4. Will your agency meet the deadline of October 1, 2012 (EPACT'05 Sec 103) for metering of energy use? (Agency should provide current status of buildings metered and plans for meeting the deadline).

Yes. The Department's bureaus have completed metering for electricity in approximately 95% of appropriate buildings. It is anticipated that 100% of appropriate buildings will be metered for electricity by October 1, 2012.

5. If your agency reports in the FRPP, will it be able to report by December 2011 that at least 7% of its inventory meets the High Performance Sustainable GPs?

No. The Department is working with OMB to find solutions to the Department's large existing building inventory challenge. The Department will work with OMB secure data to inform these discussions. The data is expected by the end of June and will meet with OMB to discuss results in July.

Appendix 1: Acronyms and Abbreviations

AFV	alternative fuel vehicle
AMP	Asset Management Plan
API	Asset Priority Index
ARRA	American Recovery and Reinvestment Act
BIA	Bureau of Indian Affairs
BLCC	basic life cycle costing
BLM	Bureau of Land Management
BOEMRE	Bureau of Ocean Energy Management, Regulation, and Enforcement
Btu	British thermal unit
C&D	construction and demolition
CBA	cost benefit analysis
CEQ	Council on Environmental Quality
CIO	Chief Information Officer
CFL	Computers for Learning
CFR	Code of Federal Regulations
Council	Department of the Interior Sustainability Council
CPIC	Capital Planning and Investment Control
CPU	central processing unit
CRAC	computer room air conditioning
CSC	Climate Science Center
CWA	Clean Water Act
Department, the	Department of the Interior
DIAPR	Department of the Interior Acquisition Policy Release
DIET	Department Innovations and Efficiency Team
DMCI	deferred maintenance and capital improvements
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOG	Deputies Operations Group
DOI	Department of the Interior
DOIU	Department of the Interior University
DOS	Department of State
DOT	Department of Transportation
ECM	energy conservation measure
ECM	Environmental Compliance Memorandum
EISA	Energy Independence and Security Act
EMS	Environmental Management System
EO	executive order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
EPCRA	Emergency Planning and Community Right-To-Know Act
EPEAT	electronic product environmental assessment tool

EPP	environmentally preferable purchasing
ES	electronic stewardship
ES Plan	Electronics Stewardship Plan
ESA	Endangered Species Act
ESM	Environmental Statement Memoranda
ESPC	Energy Savings Performance Contract
EUL	enhanced use lease
FCI	Facility Condition Index
FEMA	Federal Emergency Management Agency
FEMP	Federal Energy Management Program
FERC	Federal Energy Regulatory Commission
FRPP	federal resource property profile
FWS	U.S. Fish and Wildlife Service
FY	fiscal year
GHG	green house gas
GP	Guiding Principles for High Performance and Sustainable Design Green Building
GPP	Green Procurement Plan
GPRA	Government Performance and Results Act
GSA	General Service Administration
gsf	gross square feet
IARPC	Interagency Arctic Research Policy Committee
IPR	Interim Progress Reviews
IRB	Investment Review Board
IT	information technology
ITT	IT Transformation
ISO	International Standards Organization
LCC	Landscape Conservation Cooperative
mtCO ₂ e	metric tons of carbon dioxide equivalent
NASA	National Aeronautics and Space Agency
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRC	Nuclear Regulatory Commission
NSF	National Science Foundation
O&M	operations and maintenance
OCIO	Office of Chief Information Officer
OCO	Office of Communication
OEPC	Office of Environmental Policy and Compliance
OFEE	Office of Federal Environmental Executive
OMB	Office of Management and Budget
PAM	Office of Property and Acquisition Management
PM	power management
PPA	power purchase agreement

PUE	power usage effectiveness
PV	photovoltaic
R2	responsible recycling practices for use in accredited certification programs
RCRA	Resource Conservation Recovery Act
Reclamation	Bureau of Reclamation
RIA	regulatory impact analysis
RMP	resource management plan
ROI	return on investment
SB	sustainable buildings
SB Plan	sustainable buildings plan
SB Tool	Sustainable Buildings Assessment and Compliance Tool
SI	The Smithsonian Institution
SNAP	Significant New Alternatives Policy
SO	Secretarial Order
SRPO	senior real property officer
SSO	senior sustainability officer
SSPP	Strategic Sustainability Performance Plan
TMS	Travel Management System
TRI	toxic release inventory
TVA	Tennessee Valley Authority
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
UESC	utility energy service contract
USFS	U.S. Forest Service
USGS	U.S. Geological Survey